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Arizona Labor Market NEWSLETTER

Arizona Department of Economic Security

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EDUCATION MEETING THE NEEDS OF BUSINESS & INDUSTRY

An Address to the State Vocational Conference

The text below is a speech delivered before the State Vocational Conference held in Flagstaff on August 8, 1983. It is the well-stated viewpoint of James Wellington, Manager, Manpower Planning and Development, Arizona Public Service, about how public education can meet the needs of employers. We are pleased to reproduce the text in its entirety. Thanks go to Carol LeBlanc, statewide Occupational Planning Coordinator, Maricopa County Community College District, for bringing it to our attention, and to Mr. Wellington for allowing us to publish it.

"It's a pleasure to be invited to speak on this most important subject of how public education can meet the needs of the business and industry employers. Let me say it briefly and plainly.

"Public education can meet the needs of the business and industry employers by assuring high school graduates and non-graduates possess basic skill proficiencies. The skill proficiences affect not only the performance of entry-level positions, but also the possibilities for job advancement. We all want to progress in our careers. There are---in my judgment and others---seven major competencies to be developed in elementary and high schools prior to graduation:

UNEMPLOYMENT RATE

Seasonally Adjusted
September*

ARIZONA	8.2%
Maricopa Co.	6.5%
Pima Co.	7.8%
UNITED STATES	9.3%

CONSUMER PRICE INDEX

National-August
1967 - Base Year

Wage Earner/Clerical Worker -	299.5
% Chg. Yr. Ago	2.4
All Urban -	300.3
% Chg. Yr. Ago	2.6

Phoenix-3rd Qtr.
1977 - Base Year

All Urban -	173.2
% Chg. Yr. Ago	1.5

PRODUCER PRICE INDEX

National-September*
1967 - Base Year

All Commodities-	305.3
% Chg. Yr. Ago	1.0
Finished Goods-	285.1
% Chg. Yr. Ago	1.0

* Preliminary

"1. Speaking and Listening Competencies - This is the ability to engage critically and constructively in the exchange of ideas.

"2. Mathematical Competencies - which is the ability to perform the compilations of addition, subtraction, multiplication and division using natural numbers, fractions, decimals and integers.

"3. Reading Competencies - perhaps the most critical. This is the ability to identify and comprehend the main and subordinate ideas in a written work and to summarize the ideas in one's own words. This would include the ability to recognize different purposes and methods of writing, to identify a writer's point of view and tone, and to interpret a writer's meaning inferentially as well as literally.

"4. Writing Competencies - defined as the ability to organize, select and relate ideas and to outline and develop them in coherent paragraphs. In so doing to writing standard English sentences with correct:

- sentence structure
- verb forms
- punctuation, capitalization, and other forms of mechanics
- word choice and spelling

"5. Scientific Competencies - the ability to understand the basic principles of mechanics, physics and chemistry.

"6. Reasoning Competencies - the ability to identify and formulate problems, as well as the ability to propose and evaluate ways to solve them.

"7. Attitude Competencies - Improper attitude often is the roadblock to getting or once having been hired---keeping a job. Skill deficiencies in attitude which affect business operations are those related to behavior, including being late, improper dress, and poor interpersonal relations. The majority of failures in a corporation---in my experience---are not lack of technical skills, but are due to poor "human relations" training and upbringing. The ability to cope with and be consistently productive in a work environment is a crucial "basic skill" which may be as important as academic competencies in determining a new employee's employment future. Often this subject is addressed only in vocational education courses. It deserves more attention.

"To achieve these competencies will require a change of procedures by the public and the educational establishment. Business can help and has become increasingly involved. According to the Center for Public Resources, 35% of the corporations surveyed, provide, indeed repeat, basic high school training for their employees. Last year the American Telephone & Telegraph Company spent $6 million on remedial programs for about 14,000 employees.

"We all have read of the disturbing results of several national studies stating that many high school graduates are not prepared to complete basic tasks in industry. There are many reasons why some young applicants are not better prepared. One of them is that business-industry and education have not yet---together---developed an effective process of working together. I believe it is critical that we do. We have tried. Many of us here belong to business-industry-education councils. We meet with the purpose of helping each other to find an effective process which will assure that young graduates are ready to meet basic job requirements in business or industry---if that is their choice. Business/Education representatives meet with the purpose of building trust and a cooperative, supporting relationship. Executives meet with superintendents and we discuss; we establish business/education exchanges where teachers work in an industry during the summer and we discuss; or an industry conducts training sessions for teachers regarding what makes a business or industry run---and again, we discuss. Always we discuss---which is necessary---but action is necessary also. Action which plans and executes changes and brings about results.

"The Phoenix ABIEC Organization has many excellent programs under way. They've been well publicized---with good results---yet we still have problems. Here are some of the problems as I see them.

"1. Even with the excellent programs associated with the Phoenix ABIEC, we still have graduates who come to apply for work unprepared. This doesn't mean the programs are failures---it means---in my judgment---we need more of them---many more---and not just in Phoenix. There are young students in Parker, Ajo, Patagonia, Bisbee---who also need special programs to prepare them for business and industry jobs. Stated simply---we need more committed---active business-industry-education councils throughout the entire state.

"2. Business and industry have got to do more than they are now doing in terms of financial support. With all of the excellent programs underway in Phoenix, and with all of the business-industry organizations available, we are lucky to get $50,000 each year. Last month we completed a free enterprise institute here in Flagstaff for the fourth consecutive year. Approximately 75 business organizations furnished resource speakers, money, equipment, and supplies. However, only $25,000 was raised for this institute. Our goal was $50,000. We wanted to provide 200 students with this excellent training but couldn't because of lack of money. A shame---because it is a well organized, meaningful learning experience. Somehow---some way---we must find a means of acquiring more financial help for all business-industry-education groups statewide. Like it or not---without money---quality programs will not exist---in fact, business-industry-education groups will not exist for any meaningful purpose. Volunteer efforts can only go so far. Our Phoenix ABIEC learned---after 18 years---that progress is severely handicapped without paid staff support. Volunteer efforts are impressive. But it needs staff for continuity and expansion of programs.

"3. Others are getting into the act. Recently an individual in Phoenix approached a major employer and asked for $10,000 to start an organization which provides services similar to the existing Phoenix Business-industry-education council. The last we heard, the industry was seriously leaning towards giving the individual the money. Industry leaders---and I might add---the state legislature become confused when

when organizations come into being---request money and other resources---to provide similar services of existing organizations.

"4. There are many ways---yet untapped---where business people and educators can help each other. But we must find a better method of developing ways of helping each other. So---what should we do?

"Let's look at some of the things that business can do.

"1. They can join with such organizations as their local B-I-E Councils and work with them to make their partnership effective and meaningful. Many of the corporations have done this but there are still thousands of Arizona companies which still need a more effective industry-education linkage. Since the B-I-E Councils are providing a unique service that allows for more than talking---this is a distinct advantage to their memberships.

"2. Corporations can provide, when possible, equipment for use in training and learning. As an example, Hewlett-Packard provides gifts of new electronic equipment for research and learning. That means business must have applicant skills in science and math. It's counter-productive to keep investing only in R&D equipment and facilities when the pool of trained personnel who can look through microscopes and work with the new technologies is shrinking. In Phoenix, the Intel Corporation has donated more than $25,000 in equipment and services to the Paradise Valley High School and Mesa Community College.

"3. Business can work with high school and post-secondary instructors in teaching in the classroom. Corporations vary as to how much time is provided off the job. I might add that one key to making this work is enthusiastic cooperation between the teacher and the visiting business executive, and a new and continuing emphasis on building trust, sharing needs, and resolving problems.

"4. We should explore the possiblity of business and teachers exchanging jobs for a specified period. Perhaps the executive could teach for one semester (or some specified period) in a specific area of his or her expertise and the teacher could work in the executive corporation in a learning situation. To make this option possible, however, will require the cooperation of the State Board of Education and/or the legislature for the required teaching certificate.

"5. Business must raise its voice to the concerns that we are talking about today. When business speaks it has an audience. Business must assume and exercise leadership in making the State and our Nation aware of the enormity of the challenge we have. The challenge has two dimensions: economic and the challenge within our educational system.

"6. Business and Education in this instance---in surfacing our concerns---must include the students' parents in resolving our problems. They are a vital link in shaping attitudes of the students. Parents program their children's twelve billion mental computer cells for decisions they will make for the rest of their lives. Once a program is written it is not easy to change. Patterns of excellence, integrity and ability to think critically are established in the home. Education reinforces and broadens the patterns of learning. One of the most important things parents can do for their children is to inclucate in them a way of life which stresses the ability to think critically. Life is a series of choices where priorities are established between competing wants. These priorities tell where we spend our time, what we read, where we live, what we think, in a word just about everything about us. The collective priorities programmed describe our society. Many parents do not appear to be fully aware of this critical role they are expected to fulfill while working in tandem with the elementary and secondary schools. A child raised in a home environment where learning is not valued, where pride in work is not valued, has a huge handicap. As we address and speak out concerning our current problems, a reminder to parents---in positive and supportive terms---should be included in our message.

"7. The business and education partnership can lead a new citizen effort directed at helping to assure the orderly functioning of our entire educational system. The school should be the main source of strength in a free society. Its job is the highest possible development of the individual in terms of his or her skills, the appreciation of the art of living, the ability to take part in vital decisions being made by his/her community and by the nation itself.

"In short, the school should be the key connecting link between the natural capacity of young people and their actual and potential achievements. Perhaps these are the "real basics" of education. Business, citizens and educators can help structure the educational system to achieve these objectives. If there is not cooperation between business and education and we pursue special interests only, our educational system is going to have an uncertain future. So will our country. Educators and business and industry leaders must get together and seek commonalities between decision-making in business and education. We must become aware that neither the business world nor the educational world system can keep their spheres from intersecting. We can work together to solve our mutual problems to the advantage of both.

"Here is a suggested action plan. It calls for a statewide emphasis---not just Cochise County or Phoenix or Tucson or Yuma or Flagstaff or Kingman---but statewide. We sometimes forget our teachers and students in the outlying smaller communities. The students in Parker, Tuba City, Show Low, Ajo, and so forth, are also interested in understanding, participating and contributing to the business world.

"So my action plan goes like this. Since it is statewide in scope, the Arizona State B-I-E leadership would appear to me to be an ideal catalyst for seeing that it occurs. If not the Arizona State B-I-E-C---then we must push for some person or group to see that it occurs.

"First---We need to have a 2 or 3 day business-industry-education-state government summit or dialogue.

"Second---Attendance must include the top decision makers of the state, key legislative leaders, Carolyn Warner and whomever she wants to bring, and the CEO and/or President of both large and small business in the State. The Board of Regents must be represented. It must also include representatives of school boards, school administrators and teachers at elementary and secondary levels---also, representatives of all Arizona State Business-Industry-Education Councils.

"Third---The agenda must contain the key issues that face the education/industry interface. We must not shrink from the facts that are real and must be discussed and resolved. In certain instances such discussions will be difficult and sensitive---even painful. So be it. We can overcome our difficulties if we will admit that no one is entirely blameless as we examine the circumstances in which we find ourselves. Said differently, let's not get into finger-pointing. Let's surface the problem---disect it and study ways and means of resolving it. Let's also state clearly the benefits to be gained for all who participate---be it a person or group. Let's face it---we have experienced "turf protecting". It exists---let's learn how to deal positively with this fact and get on with developing programs for the good of all---and especially the student.

"Perhaps we will need more than one summit. Again---so be it. Let's meet as often as necessary. But when that summit---or maybe I should say each summit---ends---let's have assignments to complete---establish follow-through deadlines---and specify who will be responsible for doing what.

"That's how you and I solve problems. That's how business resolves issues and problems.

Let's solve this tremendously important concern---together. If we don't, we are going to suffer---together.

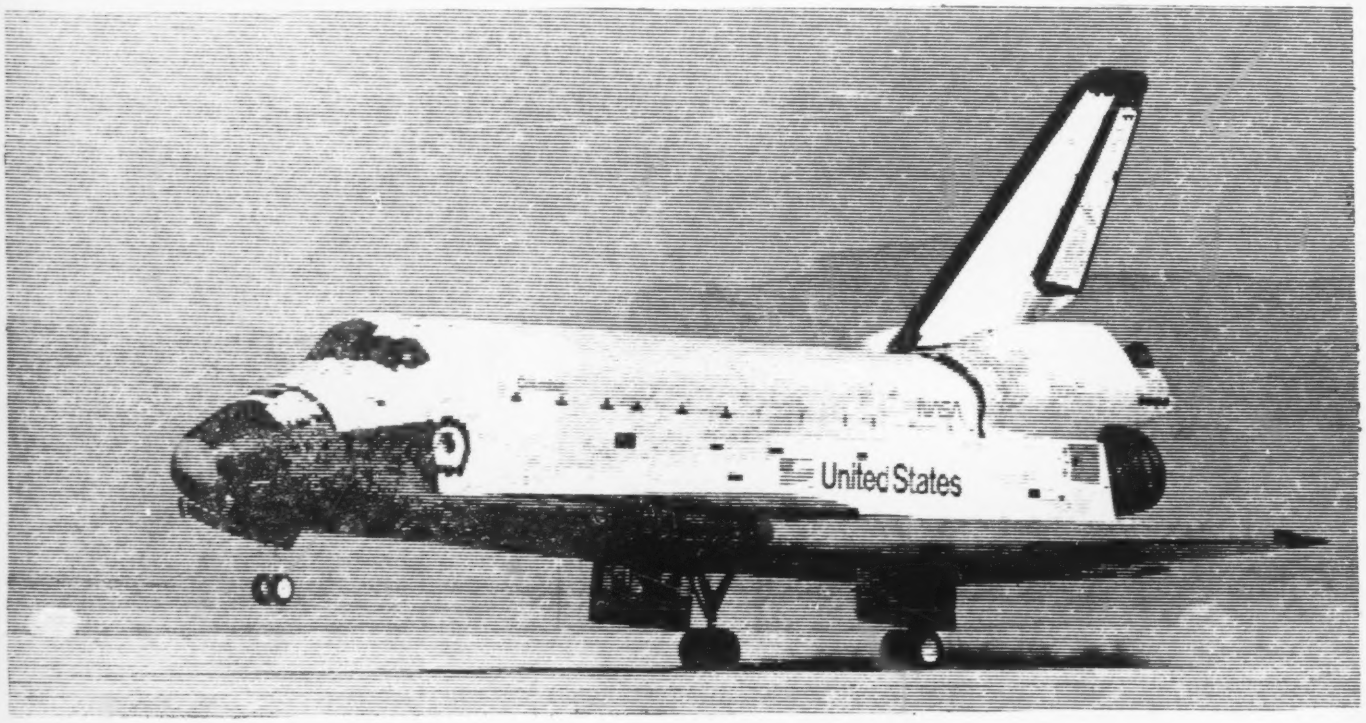
"In my judgment, the future of industry and the United States economy largely rests on America's will to make investments in education, both inside and outside the classroom.

"No longer can we depend on government alone to set educational priorities---nor should we. As the Federal Government continues to remove itself from the role of prescribing educational policy, the burden of planning and supporting educational programs will rest more squarely on the state and local boards. That's where it essentially belongs. But the business and industry, also, have a great deal to contribute. There must be a working partnership between companies, schools and governments to ensure adequate funding and effective management of our educational system.

"In an era of budget cuts, companies must remember that schools are vendors to industry. Companies must, on one hand, encourage government to fund education effectively and, on the other, create private sector initiatives.

"We in industry must take the time needed and offer the resources required to help educators sharpen the minds of the present and next generation. Our investments now in their skills and enterprise will determine the future of U. S. prosperity.

"Years ago, F.D.R. used to say: "The country needs and demands bold persistent experimentation. It is common sense to take a method and try it. If it fails, admit it frankly and try another. But above all, try something." In other words, don't just stand there. Do something. I think this advise fits us. We represent the knowledge and experience needed to make a partnership work. Let's exchange freely our frustrations---our ideas---our thoughts on solutions. Like it or not, we are the change agents for the future. Let's get on with it."



U. S. JOB GROWTH 28 MILLION BY 2000

The National Planning Association, an economic research group headquartered in Washington, D. C., forecasts 28 million new jobs in the United States by the year 2000. The Mountain states, followed by the Southwest, will enjoy the fastest growth. Three states - California, Texas and Florida will account for at least one third of that growth. Sixty percent of the new jobs will be in services, trade and finance, NPA says.

The average yearly growth rate for the nation will be 1.17 percent across all industries. Arizona's rate of growth will average 2.47 percent per year. All of Arizona's industries except mining and agriculture are expected to grow at rates greater than the national average. Only Nevada, Wyoming, and Alaska are expected to have higher overall growth rates than Arizona. The projected growth rate for Arizona implies an addition of almost 30,000 new jobs each year, or more than a half million more jobs by the end of the century.

YEARLY EMPLOYMENT GROWTH RATES
1980 - 2000
FOR SELECTED WESTERN STATES

States	All Industries	Manufacturing	Retail Trade	Services	Finance	Construction
U.S.	1.17	0.49	0.75	2.68	2.55	1.08
Arizona	2.47	2.00	2.19	3.65	3.44	2.81
Alaska	2.55	1.77	2.63	4.28	4.87	1.84
California	1.65	1.22	1.23	3.03	2.78	1.83
Colorado	2.19	1.85	1.89	3.66	3.60	1.88
Hawaii	1.41	-0.56	1.48	2.76	2.57	-0.50
Nevada	2.76	2.84	2.69	3.27	3.50	3.37
New Mexico	1.99	1.89	1.76	3.18	3.45	2.81
Texas	1.96	1.49	1.62	3.28	3.33	2.68
Utah	2.10	1.94	1.64	3.88	3.76	3.12

Source: National Planning Association as reported in Manpower Vocational Education Weekly, August 18, 1983.

U OF A STUDY FORECASTS BRIGHT FUTURE FOR ARIZONA DURING NEXT FIVE YEARS

Arizona should continue to be one of the fastest growing states in the country, but won't grow as fast as in 1975-1980, according to the University of Arizona's Division of Economic & Business Research (DEBR). The forecast, written by research specialist Marshall J. Vest and published in the August issue of Arizona's Economy, cites a slower growth rate nationally, continuing budget deficits, high real interest rates and a high rate of inflation as primary reasons for slower growth.

Real interest rates are expected to remain high due to a combination of (1) inflation outlook, (2) the expected collision between huge federal borrowing and private credit demands as the expansion progresses, (3) the deregulation of financial sectors, and (4) the likely continued determination of the Federal Reserve Board to "wring" inflation expectations from the system once and for all.

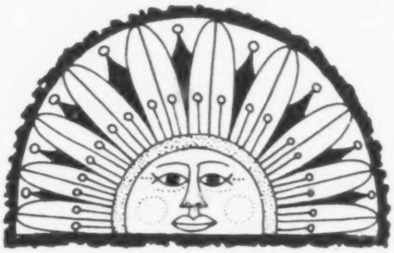
Prospects for growth in Arizona during the next five years are much greater than what is expected for the nation, according to the DEBR forecast. Total wage and salary employment is expected to grow by almost 30 percent, real disposable income will grow by more than 30 percent, and the volume of retail sales will increase by 35 percent through 1988. Statewide population is expected to increase by 16 percent during the same period.

Pima County is expected to outpace Maricopa County over the next five years in the percentage increase of population, jobs, and disposable personal income. Pima County's population will increase by 17 percent while Maricopa County's population increases by 16 percent. Job availability is expected to increase by 35 percent in Pima County, compared to a 30 percent increase in Maricopa County. Pima County also leads in the projected increase of disposable after-tax income with 34 percent, as compared to a 28 percent increase in Maricopa County.

Construction jobs aren't expected to increase in Pima County as much as in Maricopa County, but Pima County is expected to have a greater increase in service-related industries and manufacturing jobs. The mining industry is not expected to reach its 1974 peak of 27,000 workers or even the 1981 level of 25,000 by 1988.

The study predicts that the manufacturing industry should account for 16 percent of the state's employment by 1988. As of July, manufacturing accounted for 13 percent of total employment in Arizona. While a 38 percent increase in manufacturing jobs is forecast for Maricopa County, the increase in Pima County is projected at 62 percent.

Factors cited for the competitive advantage of Arizona over other states in attracting industry include a favorable climate, relatively low costs of doing business (low taxes, wage scales) and a relatively low cost of living.



COURT UPHOLDS NEW DAVIS-BACON RULES

The Department of Labor's revised rules on the Davis-Bacon Act were upheld by the U.S. Court of Appeals for the District of Columbia Circuit, reversing a district court decision by Judge Harold Greene.

The 53-year-old Davis-Bacon Act requires that workers on federally-financed construction projects receive pay rates equal to those prevailing in the area in which the construction is being performed.

Upheld by the appeals court are provisions in the new regulations that redefine prevailing wages in a given area as the rate paid to a majority of workers---rather than 30 percent, liberalize the use of helpers, prohibit the importing of urban wage rates to rural projects, and restrict the use of Davis-Bacon rates when determining prevailing wages in a given area.

The court said DOL must recognize prevailing local practices regarding the use of helpers, disapproving the portion of a rule that set a nationwide helper-journeyman ratio for all Davis-Bacon projects. The court also rejected DOL's plan to let federal contractors submit compliance statements without actual wage figures instead of filing weekly payroll reports, as currently required.

The decision by Judge McGowan is joined by Judges MacKinnon and Edwards.

The AFL-CIO Building and Construction Trades Department, which filed the original suit to block implementation of the new rules, will appeal the D.C. Circuit ruling, according to Robert Georgine, BCTD president.

The final version of revised Davis-Bacon rules, formally announced by DOL more than a year ago, contains reporting requirements, allows the expanded use of "helpers," bans the importing of urban wage rates to projects in rural areas, and places new restrictions on considering wage data from projects covered by Davis-Bacon when determining prevailing wages applicable to future projects of a "character similar" in the same area.

The Building and Construction Trades Department immediately filed suit to block implementation of the new rules, which they called "arbitrary, capricious," and "an abuse of discretion." Last July Judge Greene of the U.S. District Court for the District of Columbia issued a preliminary injunction against the Department of Labor, blocking it from implementing most of the new regulations until the court ruled on the merits. In December, Judge Greene issued a permanent injunction, ruling that the revisions drafted by the Labor Department were invalid - except for the rule redefining prevailing wages under the Act and how they should be determined. The interpretation of what constitutes the prevailing wage, he ruled, is entirely within the discretion of the Secretary of Labor.

Following Judge Greene's decision, the Labor Department in April 1983 issued a new set of Davis-Bacon regulations that omitted the proposed changes struck down by the district court.

(Reprinted from Employment and Training Reporter, 7-13-83.)

September 1983 (in thousands)

	ARIZONA				
				-- Amt Change --	
	Sep.* 1983	Aug. 1983	Sep. 1982	Aug. to Sep.	1982 to 1983
TOTAL CIVILIAN LABOR FORCE	1351.4	1327.5	1333.5	+23.9	+17.9
Total Unemployment	106.4	125.0	147.0	-18.6	-40.6
Rate	7.9	9.4	11.0	---	---
Rate (Sea. Adj.)**	8.2	9.1	11.0	---	---
Total Employment	1245.0	1202.5	1186.5	+42.5	+58.5

THE ABOVE LABOR FORCE STATISTICS SHOULD NOT B

NONAGRICULTURAL WAGE AND SALARY EMPLOYMENT BY PLACE OF WORK

	Sep.* 1983	Aug. 1983	Sep. 1982	Aug. to Sep.	1982 to 1983
TOTAL WAGE AND SALARY	1052.7	1011.7	1022.5	+41.0	+30.2
Manufacturing	155.7	153.2	151.4	+2.5	+4.3
Durable Goods	120.9	119.0	117.1	+1.9	+3.8
Stone, Clay and Glass	6.0	6.0	5.0	+0.0	+1.0
Primary and Fabricated Metals	14.2	12.8	14.5	+1.4	-0.3
Primary Metals	6.6	5.3	6.9	+1.3	-0.3
Fabricated Metals	7.6	7.5	7.6	+0.1	+0.0
Machinery	61.3	61.0	61.9	+0.3	-0.6
Other Durable Goods	39.4	39.2	35.7	+0.2	+3.7
Aircraft and Missiles	18.0	17.7	16.6	+0.3	+1.4
Lumber and Wood Products (Except Furniture)	6.2	6.2	4.9	+0.0	+1.3
All Other Durable Goods	15.2	15.3	14.2	-0.1	+1.0
Nondurable Goods	34.8	34.2	34.3	+0.6	+0.5
Food and Kindred Products	8.6	8.3	9.1	+0.3	-0.5
Apparel	4.8	4.7	4.8	+0.1	+0.0
Printing and Publishing	12.0	11.8	11.5	+0.2	+0.5
All Other Nondurable Goods	9.4	9.4	8.9	+0.0	+0.5
Mining and Quarrying	15.6	14.6	15.4	+1.0	+0.2
Copper Mining	12.6	11.6	12.3	+1.0	+0.3
Other Mining and Quarrying	3.0	3.0	3.1	+0.0	-0.1
Construction	75.8	75.6	63.0	+0.2	+12.8
Trans., Communications, and Public Utilities	55.9	47.7	56.4	+8.2	-0.5
Transportation	23.5	23.4	23.4	+0.1	+0.1
Communications and Public Utilities	32.4	24.3	33.0	+8.1	-0.6
Trade	254.4	251.5	251.3	+2.9	+3.1
Wholesale Trade	51.0	50.5	50.0	+0.5	+1.0
Retail Trade	203.4	201.0	201.3	+2.4	+2.1
General Merchandise and Apparel	36.6	36.2	36.4	+0.4	+0.2
Food Stores	32.3	31.9	32.6	+0.4	-0.3
Automotive and Service Stations	24.3	24.5	24.4	-0.2	-0.1
Eating and Drinking Places	70.0	68.4	68.3	+1.6	+1.7
Other Retail Trade	40.2	40.0	39.6	+0.2	+0.6
Finance, Insurance, and Real Estate	62.6	63.0	61.6	-0.4	+1.0
Services and Miscellaneous	224.8	224.9	219.5	-0.1	+5.3
Hotels and Other Lodging Places	22.3	21.9	21.9	+0.4	+0.4
Business Services	42.4	42.5	40.4	-0.1	+2.0
Health Services	62.3	62.3	60.8	+0.0	+1.5
Other Services	97.8	98.2	96.4	-0.4	+1.4
Government	207.9	181.2	203.9	+26.7	+4.0
Federal	38.9	38.4	37.7	+0.5	+1.2
State and Local	169.0	142.8	166.2	+26.2	+2.8
School	102.4	74.4	99.7	+28.0	+2.7

* Preliminary

** Normal seasonal variations have been eliminated to reflect underlying economic trends.

NOTE--Data has been adjusted to the 1972 Standard Industrial Classifications (SIC).

September 1983 (in thousands)

MARICOPA COUNTY					PIMA COUNTY				
			-- Amt Change --					-- Amt Change --	
Sep.* 1983	Aug. 1983	Sep. 1982	Aug. to Sep.	1982 to 1983	Sep.* 1983	Aug. 1983	Sep. 1982	Aug. to Sep.	1982 to 1983
829.2	811.6	809.5	+17.6	+19.7	252.5	246.1	248.9	+6.4	+3.6
51.4	57.8	70.9	-6.4	-19.5	19.0	21.1	26.5	-2.1	-7.5
6.2	7.1	8.8	---	---	7.5	8.6	10.6	---	---
6.5	7.0	8.8	---	---	7.8	8.4	10.6	---	---
777.8	753.8	738.6	+24.0	+39.2	233.5	225.0	222.4	+8.5	+11.1

USED FOR ECONOMIC ASSISTANCE PROGRAMS.

NONAGRICULTURAL WAGE AND SALARY EMPLOYMENT BY PLACE OF WORK

671.1	646.8	649.0	+24.3	+22.1	196.0	187.2	190.7	+8.8	+5.3
111.5	109.9	109.8	+1.6	+1.7	26.5	26.5	25.2	+0.0	+1.3
88.2	86.8	87.1	+1.4	+1.1	21.5	21.6	20.4	-0.1	+1.1
3.8	3.8	3.0	+0.0	+0.8					
9.1	7.9	9.6	+1.2	-0.5					
48.8	48.5	49.6	+0.3	-0.8					
26.5	26.6	24.9	-0.1	+1.6					
23.3	23.1	22.7	+0.2	+0.6	5.0	4.9	4.8	+0.1	+0.2
5.3	5.4	5.8	-0.1	-0.5					
2.4	2.4	2.4	+0.0	+0.0					
8.8	8.6	8.4	+0.2	+0.4					
6.8	6.7	6.1	+0.1	+0.7					
0.5	0.6	0.6	-0.1	-0.1	3.4	3.1	4.2	+0.3	-0.8
51.6	51.1	42.0	+0.5	+9.6	15.1	15.2	11.8	-0.1	+3.3
35.5	29.7	35.5	+5.8	+0.0	8.8	7.0	9.0	+1.8	-0.2
15.3	15.2	15.0	+0.1	+0.3	3.9	3.9	3.9	+0.0	+0.0
20.2	14.5	20.5	+5.7	-0.3	4.9	3.1	5.1	+1.8	-0.2
169.4	167.2	166.9	+2.2	+2.5	42.8	42.5	43.2	+0.3	-0.4
40.8	40.6	39.9	+0.2	+0.9	6.1	6.1	5.9	+0.0	+0.2
128.6	126.6	127.0	+2.0	+1.6	36.7	36.4	37.3	+0.3	-0.6
23.2	22.8	23.2	+0.4	+0.0	6.7	6.7	7.1	+0.0	-0.4
20.6	20.3	20.7	+0.3	-0.1	5.3	5.1	5.4	+0.2	-0.1
14.8	14.9	14.8	-0.1	+0.0	4.3	4.3	4.4	+0.0	-0.1
42.5	41.4	41.6	+1.1	+0.9	13.1	12.9	13.0	+0.2	+0.1
27.5	27.2	26.7	+0.3	+0.8	7.3	7.4	7.4	-0.1	-0.1
48.3	48.6	47.9	-0.3	+0.4	9.2	9.3	8.6	-0.1	+0.6
148.8	148.2	144.0	+0.6	+4.8	44.4	44.1	42.9	+0.3	+1.5
12.4	11.7	12.3	+0.7	+0.1	3.1	3.1	3.0	+0.0	+0.1
34.6	34.6	32.6	+0.0	+2.0	6.2	6.3	6.1	-0.1	+0.1
41.5	41.3	40.0	+0.2	+1.5	13.6	13.6	13.4	+0.0	+0.2
60.3	60.6	59.1	-0.3	+1.2	21.5	21.1	20.4	+0.4	+1.1
105.5	91.5	102.3	+14.0	+3.2	45.8	39.5	45.8	+6.3	+0.0

-- Prepared by Labor Market Information, Research and Analysis (CPS-MOD, 1/83)

NONMETROPOLITAN COUNTIES LABOR FORCE AND EMPLOYMENT

September 1983 (Preliminary)

	Apache	Cochise	Coconino	Gila	Graham	Green- lee	La Paz
TOTAL CIVILIAN LABOR FORCE*.	14,925	30,025	36,525	14,625	8,400	3,575	5,200
Total Unemployment	2,400	2,750	2,825	2,875	1,425	200	750
Rate	16.1%	9.2%	7.7%	19.7%	17.0%	5.6%	14.4%
Rate (Seas. Adj.)**. . . .	16.8%	9.8%	8.9%	20.7%	17.4%	5.6%	INA
Total Employment	12,525	27,275	33,700	11,750	6,975	3,375	4,450

THE ABOVE LABOR FORCE STATISTICS SHOULD NOT BE USED
FOR ECONOMIC ASSISTANCE PROGRAMS

	Apache	Cochise	Coconino	Gila	Graham	Green- lee	La Paz
TOTAL WAGE AND SALARY . . .	12,825	22,175	31,550	9,475	4,400	2,825	2,625
Manufacturing	500	2,200	2,400	1,425	100	350	200
Mining and Quarrying	25	400	50	1,575	75	1,475	0
Construction	1,450	700	1,150	400	175	25	100
Trans., Comm., & Pub. Util..	1,575	1,425	2,300	325	175	50	50
Trade	1,025	4,175	7,525	1,775	1,325	275	900
Fin., Insur., & Real Estate.	125	550	775	225	125	25	125
Services and Miscellaneous .	3,050	2,700	7,325	1,475	625	75	625
Government	5,075	10,025	10,025	2,275	1,800	550	625

	Mohave	Navajo	Pinal	Santa Cruz	Yavapai	Yuma
TOTAL CIVILIAN LABOR FORCE*.	22,650	23,925	32,275	9,300	31,800	36,500
Total Unemployment	2,900	2,900	5,075	2,550	2,350	6,950
Rate	12.8%	12.1%	15.7%	27.4%	7.4%	19.0%
Rate (Seas. Adj.)**. . . .	13.5%	12.9%	15.9%	25.7%	8.1%	INA
Total Employment	19,750	21,025	27,200	6,750	29,450	29,550

THE ABOVE LABOR FORCE STATISTICS SHOULD NOT BE USED
FOR ECONOMIC ASSISTANCE PROGRAMS

	Mohave	Navajo	Pinal	Santa Cruz	Yavapai	Yuma
TOTAL WAGE AND SALARY . . .	15,000	16,375	23,025	6,650	17,500	21,275
Manufacturing	2,225	1,675	2,400	750	1,900	1,575
Mining and Quarrying	275	1,100	5,500	25	1,025	75
Construction	950	675	525	175	1,075	1,725
Trans., Comm., & Pub. Util..	950	1,600	925	525	850	975
Trade	4,400	3,450	3,625	2,675	4,625	6,450
Fin., Insur., & Real Estate.	600	300	575	250	725	675
Services and Miscellaneous .	2,550	3,500	1,775	875	3,350	3,725
Government	3,050	4,075	7,700	1,375	3,950	6,075

*Adjusted to the Current Population Survey (CPS) to reflect place of residence.
** Seasonal adjustment not applicable for economic assistance programs.

NOTE--Series for Yuma and La Paz counties start January 1983. Data is not comparable to any past series.

ARIZONA LABOR FORCE AND EMPLOYMENT FOR ECONOMIC ASSISTANCE PROGRAMS
August 1983 (Preliminary)

County	Civilian Labor Force	Employment	Unemployment	Rate
Statewide	1,326,317	1,200,856	125,461	9.5%
Apache	15,691	12,017	3,674	23.4
Cochise	29,054	25,969	3,085	10.6
Coconino	35,690	31,771	3,919	11.0
Gila	14,523	11,444	3,079	21.2
Graham	8,353	6,640	1,713	20.5
Greenlee	3,356	3,021	335	10.0
La Paz	4,935	3,985	950	19.3
Maricopa	810,011	752,129	57,882	7.1
Mohave	22,373	19,115	3,258	14.6
Navajo	25,760	20,855	4,905	19.0
Pima	246,040	224,903	21,137	8.6
Pinal	31,490	25,814	5,676	18.0
Santa Cruz	9,387	6,553	2,834	30.2
Yavapai	31,823	29,190	2,633	8.3
Yuma	37,831	27,450	10,381	27.4

Data have been adjusted to the 1972 Standard Industrial Classification (SIC). These figures are the only official BLS labor statistics to be used for revenue sharing purposes. They are not designed to be used as economic indicators. Note: Series for Yuma and La Paz counties start January 1983. Data is not comparable to any past series.

ESTIMATED HOURS AND EARNINGS OF PRODUCTION WORKERS IN SELECTED INDUSTRIES IN ARIZONA

INDUSTRY	AVERAGE WEEKLY EARNINGS			AVERAGE WEEKLY HOURS			AVG. HOURLY EARNINGS		
	SEP.* 1983	AUG. 1983	SEP. 1982	SEP.* 1983	AUG. 1983	SEP. 1982	SEP.* 1983	AUG. 1983	SEP. 1982
FOR THE STATE OF ARIZONA*									
Manufacturing	369.96	361.89	337.42	40.7	40.3	38.3	9.09	8.98	8.81
Aircraft & Missiles	495.03	471.50	423.07	43.5	41.8	39.8	11.38	11.28	10.63
Food & Kindred Products	327.37	347.51	334.46	39.3	39.4	41.6	8.33	8.82	8.04
Primary Metals	461.77	331.10	478.27	37.3	27.5	37.6	12.38	12.04	12.72
Machinery	355.97	357.62	291.27	41.2	41.2	36.5	8.64	8.68	7.98
Copper Mining	514.49	533.57	514.56	38.8	39.7	38.4	13.26	13.44	13.40
Construction	453.75	439.11	455.73	37.5	36.2	35.8	12.10	12.13	12.73
Utilities	469.98	469.98	445.84	39.1	39.1	42.1	12.02	12.02	10.59
Retail Trade**	216.02	217.94	212.78	33.7	34.0	34.1	6.41	6.41	6.24
Wholesale Trade	351.16	351.16	326.10	39.5	39.5	38.5	8.89	8.89	8.47

* Preliminary

** Excludes eating and drinking places.

NOTE--These estimates are based on a sample of full and part-time production and related employees whose payroll and hours are reported for the pay period which includes the 12th of the month. All data has been adjusted to the 1972 Standard Industrial Classifications (SIC).

--Prepared by Labor Market Information, Research and Analysis (1972 SIC, 1/83)

THE ARIZONA LABOR FORCE IN SEPTEMBER 1983

Arizona's economy recorded very significant improvement in September. The drop in the unemployment rate is the largest one-month decline ever recorded, and it places the rate at its lowest level since January 1982 when the unemployment rate was 7.7 percent. Every county in the state recorded lower unemployment rates in September, with the greatest improvement coming in the nonmetropolitan counties. Against this backdrop of rapidly falling unemployment rates, major job increases were recorded in the government, manufacturing, and trade industries. September was easily one of the most significant months for economic improvement in recent history.

In the manufacturing industry, a total of 2,500 new jobs were added. While nearly half of the improvement is the result of strikers returning to work, job increases were noted in the state's electronics and aerospace industries. As well, seasonal employment increases among food processors and apparel manufacturers also helped to increase overall manufacturing employment.

Interest rates are affecting the construction industry negatively as only 200 new jobs were added in September, compared to the 2,500 new jobs that were added three months ago. Increased construction activity is expected in coming months as both public and private entities begin to rebuild after recent flooding in many parts of the state. This will more than offset slower business in the northern counties as winter storms arrive. Overall, we expect the industry to grow slowly in the coming months as increased emergency construction work offsets losses in residential construction.

The arrival of cooler weather signals the beginning of Arizona's winter tourism season. This year, it appears that the season is beginning earlier than normal. Phoenix businessmen have been successful in expanding the tourist season. Employment in hotels, restaurants, food stores and other associated businesses expanded more than usual. If the coming months bring further job additions, this could be a good winter tourism year.

Finally, the largest job increase was recorded in government. A total of 28,000 jobs were filled by the schools as contracts were renewed and student workers were hired for the fall semester. High enrollment levels at the state's universities and community colleges have forced school administrators to augment their permanent staffs with temporary instructors. As well, many student workers have been hired to perform a variety of tasks.

The state's economy continued its improvement in September as the unemployment rate fell to three full percentage points below its high point in this recession. The combination of higher-than-usual seasonal employment increases in the agriculture, government, and trade industries coupled with continued hiring in the mining, manufacturing, and construction industries indicate the broad base of this recovery. While we have been surprised by the strength and duration of the current recovery, it appears that the state and its areas are poised for continued improvement.

ARIZONA UNEMPLOYMENT INSURANCE ACTIVITIES - AUGUST

	August 1983	July 1983	August 1982	% Change From 1 Year Ago
Arizona Claimants Served**	43,043	47,054	64,502	-33.3%
Arizona Weeks Unemployed***	10.2	9.7	9.9	+ 3.0%
Arizona Benefits Paid**	$14,442,909	$15,004,263	$21,072,555	-31.5%
Arizona Trust Fund Balance	$177,707,565	$175,356,635	$258,460,115	-31.2%

*Estimated **All Programs ***UI Only

RESIDENTIAL CONSTRUCTION IN PHOENIX METROPOLITAN AREA TO SET NEW ALL-TIME RECORD IN 1983

A record volume of new residential units will be built in the Phoenix metropolitan area in 1983. A total of about 43,000 units will probably be built, exceeding the previous all-time peak of less than 42,000 in 1978 and nearly doubling the 1982 volume of 22,500 starts. (In 1978, though permits were issued for about 43,500 units, permits for at least 2,000 of these units were not used until the following year.)

In the first seven months of this year alone nearly 30,000 units (29,500) were started---three times the number for the first seven months of last year and 7,000 more than for all of last year.

This total for the first seven months of 1983 included 13,000 rental apartments and 16,500 sales units. Even with the expected slowdown for the remainder of the year, mostly in rental apartments, the total for the year, of both starts and completions, is likely to reach about 43,000 units, with about 17,000 in rental apartments and 26,000 in sales housing. (This sales housing includes both single family detached and attached for-sale housing, the later being commonly referred to as townhouse-condos.)

While this will be a record overall year for residential construction in the Valley, and especially for rental housing development, 1983 sales housing development will be only a close second to the 1978 record level, which was about 30,000. But, at 26,000, it will be far above the rate of about 15,000 per year for 1980, 1981, and 1982. And 1984 has a better-than-even chance of being even better than 1983.

Continuation of, and the strength and volume of the housing boom will, of course, depend to a considerable extent on what happens with the economy and, especially, with mortgage interest rates. But the most likely scenario appears to be one of continuing improvement of the economy through most of 1984 and for at least some on-and-off softening of mortgage interest rates during this ensuing period. And that would be enough to sustain the housing boom forecast.

Only the Dallas-Fort Worth and the Houston metropolitan areas are expected to exceed the Phoenix area overall volume of residential construction in 1983, with Atlanta moving up close behind Phoenix. Houston, which has had a tremendous housing boom even through the recession, is tapering off somewhat and is expected to start about 55,000 units this year, after 67,000 last year. It is being replaced as number one in residential construction by Dallas-Fort Worth, which is expected to start between 80,000 and 90,000 units this year, after 50,000 last year. Atlanta is expected to start just over 40,000 this year, after 23,700 last year.

Others---even the former leading building-boom areas---are far behind. The Denver area is expected to start about 22,000 units this year; the Los Angeles-Long Beach area about 16,000; San Diego 14,000; San Francisco-Oakland Bay 9,000; and San Antonio 17,000.

The Tucson metropolitan area has picked up very sharply in its residential construction and, considering its size, is having a substantial residential construction boom, almost comparable with that of the Phoenix area. It is likely to have an estimated 10,500 starts this year, including 4,000 single family and 6,500 multifamily units (the latter including both rental apartments and multifamily for-sale units). It had 6,250 in 1982 and 4,800 in 1981.

However, the Phoenix metropolitan area is having four times the volume of residential construction as the Tucson area.

Within the Phoenix metropolitan area, the City of Phoenix is, of course, the leader in the volume of residential construction. In the first seven months of 1983 it has accounted for one-third (about 9,500 units) of the metropolitan area's or the Valley's total housing starts---including 28 percent (4,000) of the detached single family and 39 percent (5,500) of the multifamily. Its total starts for 1983 will likely be between 14,000 and 15,000 units, compared with its 12,000 last year.

Mesa is next in volume, with 13 percent (3,700) of the total starts in the first seven months of this year---including 10 percent (1,400 units) of the single family and 16 percent (2,300) of the multifamily. Its total starts in 1983 will probably be about 6,000 units, or over twice the 2,800 in 1982.

Scottsdale had 8 percent (2,300)---including about 1,150 single family and 1,150 multifamily. Its total starts for 1983 are heading for about 3,700 units, well over three times (3-1/3 times) the 1,100 in 1982. This is the greatest proportionate, or percentage, increase of any city in the Valley.

Chandler had just under 8 percent (2,200 units) of the Valley's starts in the first seven months of this year---including one-tenth (1,400) of the single family and 5 percent (750) of the multifamily. (The latter is an indication that Chandler is beginning to get a substantial share of the rental apartment development.) For the full year of 1983 its total starts will probably reach about 3,500, or well over twice its 1,500 last year.

Tempe had 9 percent (2,600 units)---including 6 percent (850) of the single family and over 12 percent, or one-eighth (1,800), of the multifamily. For all of 1983 it will probably have about 3,500 total starts, or over twice its 1,500 for 1982.

Glendale had just under 8 percent (2,200 units)---including 9 percent (1,200) of the single family and 7 percent (1,000) of the multifamily. The total starts for 1983 will likely be about 3,500, or three times the 1,150 last year.

For the Valley as a whole, housing starts for all of 1983 are, as indicated above, projected to be about 43,000 units, or nearly twice the 22,500 in 1982.

Dave Lutin, Housing Economist
and Development Consultant
David L. Lutin Associates

NEW DEVELOPMENTS

Construction - A Phoenix-based development company, JRS Development, has preliminary plans to build a 300-room high-rise hotel and a three-level mall immediately south of Tucson Mall. Although the mall is still in the planning phase, it is expected to have 50 to 70 stores, about 50 of them small shops.

Kitchell Development Co. announced that it started construction on both phases of Wilmot Corporate Plaza. The project consists of a four-story, 50,000-square-foot office building; a six-story, 76,000-square-foot office building; and a 500-car parking structure. According to William C. Schubert, president of Kitchell Development, "Our decision to build both buildings simultaneously is based on the strengthening Arizona economy, our assessment of market demand in Tucson and the economies of single-phase construction."

Completion of the project is scheduled for the spring of 1984.

The final site preparation has been completed for the Lake Havasu City Croft Metals Inc. manufacturing plant and structural construction was expected to begin in September. Floyd Hamilton, project manager, said he is confident the contractor will hire local residents to work on the project, particularly workers with concrete experience.

Surprise Town Manager, Harold Yingling, has outlined $15 million in current and $94,184,000 in proposed development of the town. Surprise's strategic location near a developing Bell Road and Sun City West has attracted a variety of business developments. In addition to the $15,035,836 in ongoing projects, Yingling estimates they will create 292 jobs.

Manufacturing - Gates Learjet Corp. has been awarded a $175.4 million, five-year contract to lease at least 80 Model 35A Learjets to the U.S. Air Force. As a result, more than 900 jobs are to be added in Tucson before March, nearly doubling the work force. Recalls of furloughed workers and hiring could begin as early as mid-November. The Learjet contract will also provide work for Garrett Turbine Engines Co. in Phoenix, which makes the engines.

General Instrument Corp. plans to hire about 25 workers by the end of the year and consolidate its Tucson operations in a new building by the end of 1985. The company's R. F. Systems Division moved its headquarters to Tucson from Sherburne, N.Y., in August, and now has about 50 workers.

Texstyrene, headquartered in Fort Worth, Texas, plans to manufacture foam insulation in Yuma for use in buildings and homes throughout the Southwest. The plant is expected to employ about 10 people when it opens in June, with the payroll growing to 40 people if the project is successful.

Trade - Mervyn's has started interviewing and hiring job applicants for its third department store in Tucson. The new east-side outlet is expected to create about 200 jobs, mostly part-time positions.

Flagstaff's newest industry---the massive Walgreen Co. distribution center---was unveiled in August as "the most technologically advanced" of the firm's centers around the country. The warehouse encompasses more than 200,000 square feet and, with 125 to 150 employees, is one of Flagstaff's larger industries.

Tourism - Arizona is among 13 states in which the No. 1 source of jobs in 1981 was the travel and tourism industry, according to statistics recently released by the U.S. Travel Data Center. Despite its role as No. 1 employer, figures for 1980-81 reveal slow growth in Arizona's tourism industry and slippage in its national ranking position among all states in the tourism marketplace. In total tourism expenditures, the state fell from its previous position of 19th in the U.S. to 21st in 1980-81. Indicators showing increases are receipts of eating and drinking places, up 13.2 percent; airline passenger traffic, up 7.7 percent domestically and 2.9 percent internationally; highway traffic volume up 4.3 percent and rail traffic up 2.9 percent.

Copper Mines Reopen - Kennecott Ray Mines Division in Hayden reopened in late August after having been closed for 15 months. It was expected that employment levels would return to about 750 by the end of the month, still well below the 1,425 employed when the mine closed in May 1982. A maintenance staff of 175 remained employed while the mine was closed. Rather than reopen its own smelter, Kennecott plans to sell copper concentrate to Asarco Inc., which owns a smelter in Hayden.

In addition, Asarco Inc., planned to reopen its Silver Bell mine on October 1 with 195 recalled workers. The Silver Bell mine had been closed since December 28, 1981, or 22 months, and 240 were laid off. Silver Bell is located about 35 miles northwest of Tucson.

Layoffs - Inspiration Copper Company laid off 225 from its Globe smelter for lack of copper concentrate in August. Other sources were being checked to see if another supply could be obtained before contracted supplies become available in January 1984 from Duval Corporation.

Noranda Lakeshore Mines, Inc. has stopped underground mining at its Casa Grande, Arizona operations a few months sooner than anticipated, in the face of a depressed copper market, and expected to dismiss 250 employees early in September. It expects to continue to employ 65 of its previous 315 at the site. Termination of all underground development was forced by heavy financial losses suffered by the company last year. Noranda Lakeshore is part of the Noranda Group of Companies based in Toronto. The Lakeshore Mine is located on leased Papago Indian Reservation land 32 miles south of Casa Grande.

Asarco Inc.'s Mission Unit, 20 miles south of Tucson, planned to furlough about 120 production workers during September because of the depressed copper industry. The layoffs will total about 23 percent of the work force. About 400 hourly workers will remain on the job at the Mission Unit. This latest layoff will now leave about 320 production workers on furlough at Asarco operations south of Tucson.

Republic Airlines anticipated laying off 100 maintenance and supervisory workers in Phoenix during September. The layoff was necessary because expected contract work failed to materialize according to Dorman W. Atwood, senior vice president for maintenance and engineering. Eighty-five of those to be laid off are members of the International Association of Machinists.

Inland Motor, located in Sierra Vista, has cut its work force by 19 because of "severe" losses over the past three months. The company failed to achieve the growth it had anticipated with the general national economic recovery. Inland Motor, a division of the Kollmorgen Corp. headquartered in Stanford, Conn., specializes in high-technology motors and electronic drive systems using samarium-cobalt magnets.

Nearly 200 civil service and military positions will be cut at Fort Huachuca next April due to contracting-out supply, transportation, maintenance, laundry and dry-cleaning services to private industry. The contract transfer will affect 157 civilian workers and 36 military. The purpose of the action is to transfer the contracts to private industry and remove the government from competition with industry.

A Maricopa County Superior Court judge has dismissed the county's lawsuit against the state, concerning Arizona's Health Care Cost Containment System (AHCCCS) contract. Maricopa County Health Services Director Adolfo Echeveste has projected 425 layoffs due to revenue losses. These layoffs will force the closing of outpatient clinics in Tempe, Buckeye and El Mirage, as well as create drastic reductions in services offered at the new Mesa facility.

Honeywell Information Systems plans to reduce the work force at its Phoenix-based Large Computer Products Division by about 500 employees, mostly through involuntary layoffs. About 300 employees will be laid off November 3, with the other 200 coming by the end of the year through early retirements and transfers to other Honeywell divisions. Reductions of middle management, engineering and support personnel were deemed necessary to reduce production costs and overhead.

Store Closing - The J. C. Penneys Co. store, 1005 North Arizona Avenue, Chandler closed in August after nine years of unprofitable operations. The store had 38 employees, most of whom were moved to other Penneys' locations.

Yuma's J.M. McDonald Co. store will close sometime this fall. Owned by the Wickes Companies of Santa Monica, California which is currently under federal bankruptcy court jurisdiction, the store has been experiencing declining sales. The Yuma store has 70 employees, many of whom have been with the store for more than 20 years.

Strike Update - The Tucson Citizen reported that one union official involved in the 51-day strike against Anamax Corp. says he has been told it could be early next year before miners return to their jobs at Twin Buttes Mine. However, G. R. Wyman, the mine's general manager, said the company is willing to return to normal employment whenever a settlement is reached. The company continues to operate its copper oxide ore-processing plant with the help of 200 salaried workers who were on the job before the strike, and 80 other non-union workers who returned to work after being laid-off before the strike.

Union and company negotiators have reported progress on side-agreements but remain far apart on the key economic issue as they try to end a 3-month-old strike against the Phelps Dodge Corp. Most of the strikers have been fired and many are threatened with eviction from company-owned homes in Ajo and Morenci to make way for new employees. All jobs have been filled at the smelter in Douglas and at the tiny leaching operation in Bisbee. At Morenci, 1,340 of a total 1,481 positions have been filled.

Union workers at Duval Corp. went on strike at midnight September 30th, increasing to three the number of copper companies being struck in Arizona. Some 675 employees of Duval Corp. were involved in the strike. As of October 5th two of the three striking unions had reached a settlement with Duval.

Communications workers ended their 22-day-old national strike late in August with Mountain Bell employees returning to work.

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Arizona Labor Market NEWSLETTER
Arizona Department of Economic Security

Vol. VII No. 12
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Unemployment Rate

Seasonally Adjusted
October*

ARIZONA	7.7%
Maricopa Co.	6.1%
Pima Co.	7.4%
UNITED STATES	8.8%

Consumer Price Index

National-September
1967 - Base Year

Wage Earner/Clerical Worker -	300.8
% Chg. Yr. Ago	2.7
All Urban -	301.8
% Chg. Yr. Ago	2.9

Phoenix-3rd Qtr.
1977 - Base Year

All Urban -	173.2
% Chg. Yr. Ago	1.5

Producer Price Index

National-October*
1967 - Base Year

All Commodities-	306.3
% Chg. Yr. Ago	2.2
Finished Goods -	287.9
% Chg. Yr. Ago	1.3

* Preliminary

ARIZONA FLOOD VICTIMS RECEIVE DUA BENEFITS

Nine Arizona counties were declared a disaster area by President Reagan during the month of October. Storms that occurred in late September-early October caused flooding which claimed 12 lives, displaced as many as 10,000 people and disrupted transportation throughout the state. The cities of Tucson, Marana and Clifton were among the hardest hit.

Statewide, 1,411 residences were damaged by floods, with 282 destroyed and 551 receiving major damage. Other losses were to crops, livestock, land and public facilities. Damage estimates from the September-October flood have reached $500 million.

The town of Clifton suffered the most concentrated flood damage. Ninety homes were destroyed and 181 sustained major damage. In addition, 106 Clifton businesses were destroyed or damaged. A flood-mitigation report prepared by the Federal Emergency Management Agency (FEMA) estimates total damage in Clifton at $9.5 million.

FEDERAL DISASTER PROGRAMS AVAILABLE

A number of federal disaster relief programs were made available to Arizona's flood victims shortly after the floods occurred. The Small Business Administration (SBA) provided low interest loans to homeowners, renters and businessmen whose homes or workplaces were damaged by floodwaters. The Farmers Home Administration (FmHA) provided loans similar to those initiated by SBA for farmers. Loans were provided only to those individuals whose losses were not covered by insurance. FEMA also provided cash grants, of up to $5,000, for people who did not qualify for other federal insurance programs. Federal disaster-assistance centers served 3,257 flood victims during the month of October.

In addition to the programs described above, the federal government provided disaster unemployment aid to individuals who were unable to work because of the floods. This program is essential to unemployed disaster victims because many have limited resources to rely on during a period when cleanup expenses are needed and daily living costs dramatically increase.

DUA PROGRAM

Disaster Unemployment Assistance (DUA) is a special form of unemployment compensation payable to unemployed workers and unemployed self-employed individuals whose jobs are lost as a direct result of major disaster. DUA is a part of the Disaster Relief Act of 1974 (Public Law 93-288).

Payment of DUA funds are made to unemployed workers if, as a direct result of major disaster, the individual:

1. No longer has a job;
2. Is unable to reach the worksite;
3. Was to commence work and does not have a job or is unable to reach the worksite;
4. Has become the breadwinner or major support for a household because the head of household died, or
5. Cannot work because of disaster-incurred injury.

A self-employed person or non-covered worker can also seek the assistance if unemployment is a direct result of disaster. Covered workers become eligible only if they do not qualify for state unemployment benefits.

To qualify for DUA funds the individual must file an application within 30 days of the announcement date (beginning of disaster period) and must be available for work. Eligibility for DUA terminates upon return to work.

The DUA weekly payment amount is computed in accordance with the state law formula used to compute weekly benefit amounts under the regular unemployment insurance program. The DUA amount payable to an individual is reduced by wages earned in that week or if the individual receives, or upon application is eligible to receive, any of the following:

1. Unemployment compensation under any state or federal law;
2. Any amount as a supplemental unemployment benefit (SUB);
3. Any type of private income protection insurance;
4. Any other type of benefit or loss of wages due to illness or disability.

Once approved, the weekly payments range from $40 a week to a maximum of $115 per week.

A uniform disaster period is established for all applicants with respect to each disaster. It begins the first week after a major disaster occurs and ends approximately one year later. However, the disaster period may end sooner if the federal coordinating officer determines that unemployment in the area is no longer attributable to the disaster.

DUA BENEFITS TO ARIZONA WORKERS

DUA personnel conducted a total of 1,067 interviews during the month of October. Interviews were conducted at 12 established disaster centers, 4 mobile units and numerous state Economic Security Offices. Eight hundred sixty-three initial applications were filed by unemployed workers, with approximately 578 claims approved. As of October 31st, a total of $39,820 DUA benefits had been paid to unemployed flood victims.

Approximately 285 claims were disapproved by DUA. The majority of these claims were disapproved because unemployment was not determined to be a direct result of disaster or because unemployed workers qualified for state unemployment benefits.

A total of 108 DUA claims were filed by self-employed individuals during the month of October. Of these, approximately 65 percent were approved. Self-employed individuals are seldom covered under the state Unemployment Insurance Program.

Unemployed workers from the town of Clifton filed approximately 128 claims at disaster centers during the month of October. About 75 percent of these claims were approved. These figures do not include those claims by unemployed Clifton residents filed at Economic Security Offices.

A number of copper mines were forced to close or reduce operations during October due to flood damage or water supply problems. In Gila County 600 copper miners were laid off while repairs were made. In Pinal County, 250 miners from Kearney were also laid off. DUA benefits were dispersed to qualified miners until they could return to work. The majority received DUA benefits for one week. DUA statistics for other occupational groups are not yet available.

The DUA program has been very successful in meeting the needs of unemployed flood victims throughout Arizona. Ed Patrick and Del Zahnleiter, co-directors of the DUA program in Arizona, have been responsible for implementing the program and providing assistance to unemployed flood victims. The DUA program is considered vital because it pays benefits faster than any other disaster program and covers workers who do not qualify for state Unemployment Insurance benefits (i.e., self-employed and non-covered workers). According to Mr. Patrick, "Many of these unemployed people come into the office after having lost everything. We were able to start paying benefits about one week after the disaster centers opened."

The DUA program was also instituted following floods that took place along the Colorado River this year. Of the 183 applications filed, 56 claims were approved. Eighteen unemployed workers are still receiving benefits due to high water levels along the Colorado River. Most of the claimants were denied benefits because their unemployment was not considered a direct result of the disaster (i.e., lost tourism revenue not directly attributable to floodwater damage).

Guy Wilson

JTPA - ARIZONA IMPLEMENTS ITS PROGRAM

On October 13, 1982 President Reagan signed into law the new Job Training Partnership Act (JTPA). JTPA is, in effect, a replacement for the Comprehensive Employment and Training Act (CETA) which ended on September 30, 1983. But JTPA is more than CETA with a new name. While JTPA retains many of the concepts of CETA, a number of new and innovative features were added. The Job Training Partnership Act provides new authority and responsibility to states and local areas administering employment and training programs statewide. Under JTPA, an equal partnership between the local business community and public sector is created for the purpose of developing and administering local programs. JTPA's primary emphasis is on training economically disadvantaged individuals in demand occupations. This is accomplished through an active partnership of private sector, public sector and interested individuals who know about the various employment opportunities in their area. Additionally, success or failure under JTPA will be measured through specific performance standards.

In Arizona, JTPA funds are received by the Governor from the Department of Labor. These funds are then distributed to designated areas within the state referred to as Service Delivery Areas (SDAs). Funds are allocated to each SDA based upon a formula provided in the law, and are then used by the SDAs to establish a variety of employment and training programs including skills training, on-the-job training, vocational programs and job search assistance. The state of Arizona is currently divided into eleven Service Delivery Areas (see below).

The priority of the programs, their evaluation and the oversight of funds constitute the major duties of each SDA's Private Industry Council (PIC). Each PIC is composed of individuals representing the private business sector, local labor unions, economic development agencies, employment services, local educational agencies, rehabilitation agencies and community-based organizations. The Act specifically mandates that a majority of the membership of each PIC must be composed of representatives from the private business sector.

The Arizona State Job Training Coordinating Council advises the Governor on the operation of job training programs in the state while coordinating and studying both public and private employment and training programs. This thirty-member Council appointed by Governor Babbitt draws its representatives from business, education, labor organizations, community organizations, elected officials and the general public. During the past several months, the Arizona Council has recommended SDA designations, Private Industry Council certifications, and reviewed each job training plan from the Service Delivery Areas. The Arizona Council also recommended to the Governor the Coordination and Special Services Plan which records the principles by which the JTPA is administered in Arizona and guides local plan development. Most importantly, the Coordination and Special Services Plan makes public Arizona's goals and objectives for employment and training, the directions for coordination, specific performance standards and the plans for state administered funds.

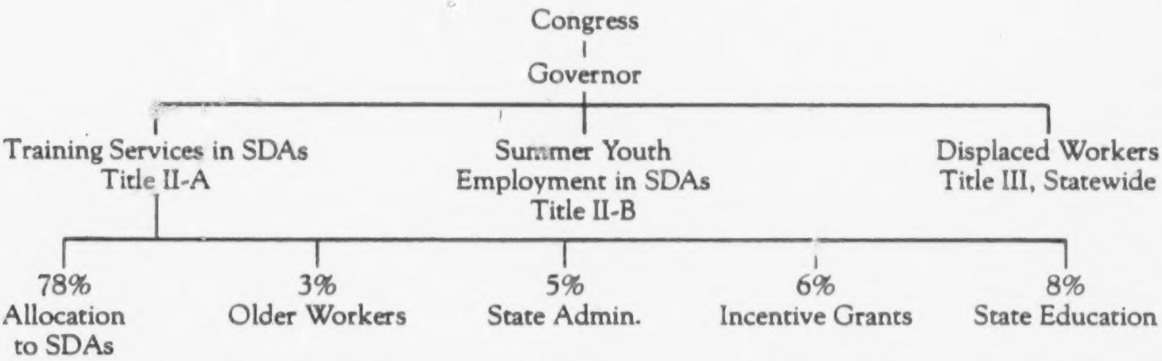
Arizona anticipates receiving approximately $22 million in funds to operate the state JTPA program over the next twelve months. Of the total amount received by the Governor, 78 percent will be passed through to the Service Delivery Areas to operate their programs. Of the remaining 22 percent, 3 percent will be used to establish "Older Workers" programs in the state; 5% will be used for overall state administrative costs; 6% will be used to provide extensive technical assistance to the Service Delivery Areas as well as to provide funds for innovative programs; and 8% will be used by the Arizona Department of Education for vocational education programs.

At the local level, funds are split into three categories - administration, participant support and training. No more than 15 percent of the funds made available to the Service Delivery Areas may be spent on administration. A similar limit is applied to participant support, with the remaining 70 percent of the funds going directly to training. The Job Training Partnership Act seeks to coordinate and combine numerous human service programs, including welfare, unemployment insurance, food stamps, vocational rehabilitation, vocational education and the employment service. Since all of these services are available in each service delivery area, the Coordination and Special Services Plan directs the PICs and local planners to work with existing services and to avoid duplicative efforts.

The Bureau Chief for the JTPA program at the state level is Jose Gabriel Loyola. He can be reached at 255-3957.

Jeffrey D. Bowman

TRANSFER OF STATE CONTROLLED JTPA FUNDS


Congress
Governor
Training Services in SDAs Title II-A
Summer Youth Employment in SDAs Title II-B
Displaced Workers Title III, Statewide
78% Allocation to SDAs
3% Older Workers
5% State Admin.
6% Incentive Grants
8% State Education

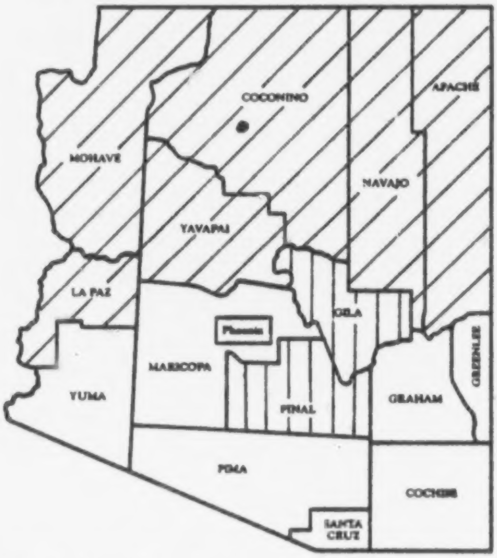
* Older Workers — Oversight provided by the DES Adult and Aging Administration. The funds are targeted to new initiatives for employment of persons 55 years of age and above.

* State Administration and Incentive Grants — Administered by the Job Training Partnership Administration, DES. These funds provide for state administration, audits and accounting, Arizona Council expenses, labor market information costs and special grants to exemplary local programs.

* State Education Grant — Administered by Division of Vocational Education, Arizona Department of Education. This grant offers SDAs funds for innovative training in high demand occupations as well as coordination between education and training programs.

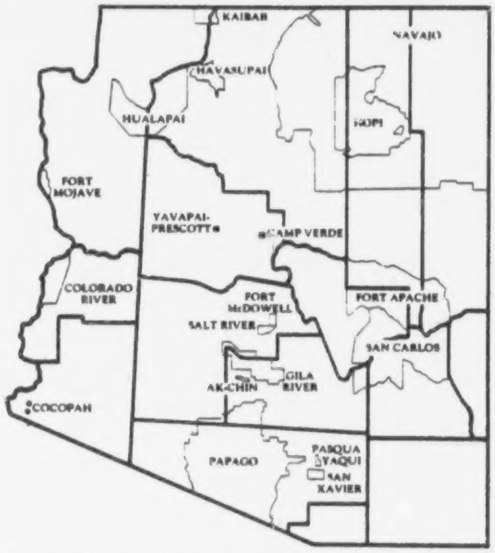
THE JOB TRAINING PARTNERSHIP ACT IN ARIZONA

SERVICE DELIVERY AREAS


COCONINO
APACHE
MOHAVE
NAVAJO
YAVAPAI
LA PAZ
GILA
Phoenix
MARICOPA
GREENLEE
YUMA
PINAL
GRAHAM
PIMA
COCHISE
SANTA CRUZ

The lined areas represent consortia. The unlined areas are single, separate service delivery areas.

TRIBAL SERVICE DELIVERY AREA


KAIBAB
NAVAJO
HAVASUPAI
HUALAPAI
HOPI
FORT MOJAVE
YAVAPAI-PRESCOTT
CAMP VERDE
COLORADO RIVER
FORT McDOWELL
FORT APACHE
SALT RIVER
SAN CARLOS
AK-CHIN
GILA RIVER
COCOPAH
PAPAGO
PASQUA YAQUI
SAN XAVIER

Arizona's tribal governments have formed a consortium and the reservations comprise one service delivery area.

JTPA SERVICE DELIVERY AREA	TELEPHONE NUMBER	AREA SERVED
City of Phoenix	262-6776	Phoenix City Limits
Maricopa County	261-5911	Maricopa County Limits excluding Phoenix
Pima County	792-8688	Pima County Limits
Gila/Pinal Consortium	868-5878	Gila and Pinal County Limits
Sixco Consortium	779-6668	LaPaz, Mohave, Coconino, Yavapai, Navajo, Apache County Limits
Yuma County	344-3778	Yuma County Limits
Graham County	428-7386	Graham County Limits
Cochise County	432-5301	Cochise County Limits
Greenlee County	865-3322	Greenlee County Limits
Santa Cruz County	287-4778	Santa Cruz County Limits
All Reservation Consortium	255-3957	Any designated reservation in Arizona

THE ARIZONA LABOR FORCE IN OCTOBER 1983

Arizona's unemployment rate fell another half percentage point in October to 7.7 percent marking the third month in a row Arizona's rate fell by a half percentage point or more. The United States' rate in October fell by an equal increment to 8.8%. While Arizona's unemployment fell to 103,700, another 21,800 jobs were added to the state's economy raising total employment to 1,267,000, the highest level ever attained in Arizona.

October normally marks the beginning of major hiring activity in retail trade for the coming Christmas season. This year, Arizonans found 2,300 new jobs in that sector. Measured by the amount of hiring activity in October, this is the best season for Arizona in four years. Eighty-seven percent of the state's retail trade industry employment increase came in Maricopa County, however, even though Phoenix area trade employment is only 64 percent of the state's.

Services is another industry that realized strong seasonal gains in October. The services group added 4,300 jobs, 1,100 of them in the hotels and motels component alone. The hotel and motel increases reflect the presence of new establishments, and optimism for the approaching tourist season. Gains this October were the best in five years. Other services employment gains were in landscaping services, amusement and recreation, and private schools.

Construction and manufacturing each continued to climb out of the recession, but at a slower pace than in previous months. Only 500 jobs were added in construction compared to early summer gains of several thousand month to month. Although a total of 27,800 jobs were lost during the 31 months of construction's recession, only 13,600 have been regained between March 1982 and October 1983.

Manufacturing, too, gave a lack-luster performance in October gaining only 200 overall. Manufacturing's recession started later (August 1981), bottomed sooner (February 1983), and is recovering faster (55 percent to date) than the construction industry recession. There is every reason to believe manufacturing will not only regain the August 1981 peak, but will surpass it in 1984.

On the other hand, copper mining's gain of 100, although encouraging, offers small hope for substantial improvement in that industry. October copper mining employment of 12,600 remains 100 percent below peak employment last seen in that industry in December 1974. Neither domestic nor world copper market conditions offer adequate promise of substantial improvement. The effect of improved domestic auto sales, for example, is being offset by substitutions of other materials for copper. The national residential construction industry has also been making substitutions, and that industry's recovery has slowed nationally as well. In addition, foreign copper producers in third world countries are being forced to continue producing copper for a glutted market in order to obtain currency for international trade.

In summary, it is the population-serving industries that are performing most impressively so far this year. Public school employment, despite losses in some school districts, achieved the highest employment level ever in October. Service industry components also set records last month. Record setters included health services, business services and "other services" composed of amusement and recreation, agricultural, legal, educational and miscellaneous services. In addition, the metropolitan areas benefitted most from improvements that did occur. Recent flooding conditions in southeastern counties generated some construction repair employment, but agricultural areas suffered damaged cotton and delayed harvests. Although amusement services employment increased seasonally in the metropolitan areas, it did not increase in normal seasonal amounts in the rural counties.

The outlook for Arizona in the coming seasson is unquestionably positive in Maricopa and Pima Counties. A good Christmas and tourism season will generate even more trade and services employment, and records will be set anew in November and December.

October 1983 (in thousands)

	ARIZONA				
				-- Amt Change --	
	Oct.* 1983	Sep. 1983	Oct. 1982	Sep. to Oct.	1982 to 1983
TOTAL CIVILIAN LABOR FORCE	1370.7	1351.6	1344.7	+19.1	+26.0
Total Unemployment	103.7	106.4	146.3	-2.7	-42.6
Rate	7.6	7.9	10.9	---	---
Rate (Sea. Adj.)**	7.7	8.2	11.2	---	---
Total Employment	1267.0	1245.2	1198.4	+21.8	+68.6

THE ABOVE LABOR FORCE STATISTICS SHOULD NOT

NONAGRICULTURAL WAGE AND SALARY EMPLOYMENT BY PLACE OF WORK

TOTAL WAGE AND SALARY	1066.6	1053.1	1032.5	+13.5	+34.1
Manufacturing	156.3	156.1	150.7	+0.2	+5.6
Durable Goods	121.2	121.2	116.2	+0.0	+5.0
Stone, Clay and Glass	5.7	6.1	4.9	-0.4	+0.8
Primary and Fabricated Metals	13.8	14.1	14.6	-0.3	-0.8
Primary Metals	6.3	6.6	6.9	-0.3	-0.6
Fabricated Metals	7.5	7.5	7.7	+0.0	-0.2
Machinery	61.8	61.5	61.1	+0.3	+0.7
Other Durable Goods	39.9	39.5	35.6	+0.4	+4.3
Aircraft and Missiles	18.2	18.0	16.5	+0.2	+1.7
Lumber and Wood Products (Except Furniture)	6.2	6.2	5.0	+0.0	+1.2
All Other Durable Goods	15.5	15.3	14.1	+0.2	+1.4
Nondurable Goods	35.1	34.9	34.5	+0.2	+0.6
Food and Kindred Products	8.6	8.6	9.1	+0.0	-0.5
Apparel	5.0	4.8	4.8	+0.2	+0.2
Printing and Publishing	12.1	12.0	11.7	+0.1	+0.4
All Other Nondurable Goods	9.4	9.5	8.9	-0.1	+0.5
Mining and Quarrying	15.6	15.5	15.6	+0.1	+0.0
Copper Mining	12.6	12.5	12.6	+0.1	+0.0
Other Mining and Quarrying	3.0	3.0	3.0	+0.0	+0.0
Construction	76.4	75.9	64.2	+0.5	+12.2
Trans., Communications, and Public Utilities	55.8	55.9	56.4	-0.1	-0.6
Transportation	23.4	23.5	23.5	-0.1	-0.1
Communications and Public Utilities	32.4	32.4	32.9	+0.0	-0.5
Trade	257.8	254.6	253.8	+3.2	+4.0
Wholesale Trade	51.8	50.9	50.7	+0.9	+1.1
Retail Trade	206.0	203.7	203.1	+2.3	+2.9
General Merchandise and Apparel	37.1	36.4	37.2	+0.7	-0.1
Food Stores	32.8	32.5	32.7	+0.3	+0.1
Automotive and Service Stations	24.4	24.4	24.3	+0.0	+0.1
Eating and Drinking Places	70.5	70.0	68.7	+0.5	+1.8
Other Retail Trade	41.2	40.4	40.2	+0.8	+1.0
Finance, Insurance, and Real Estate	63.0	62.9	61.7	+0.1	+1.3
Services and Miscellaneous	229.0	224.7	221.3	+4.3	+7.7
Hotels and Other Lodging Places	23.4	22.3	22.8	+1.1	+0.6
Business Services	43.3	42.5	40.4	+0.8	+2.9
Health Services	62.6	62.2	61.1	+0.4	+1.5
Other Services	99.7	97.7	97.0	+2.0	+2.7
Government	212.7	207.5	208.8	+5.2	+3.9
Federal	38.6	38.6	38.0	+0.0	+0.6
State and Local	174.1	168.9	170.8	+5.2	+3.3
School	108.3	103.3	105.5	+5.0	+2.8

* Preliminary

** Normal seasonal variations have been eliminated to reflect underlying economic trends.

NOTE--Data has been adjusted to the 1972 Standard Industrial Classifications (SIC).

October 1983 (in thousands)

MARICOPA COUNTY			-- Amt Change --		PIMA COUNTY			-- Amt Change --	
Oct.* 1983	Sep. 1983	Oct. 1982	Sep. to Oct.	1982 to 1983	Oct.* 1983	Sep. 1983	Oct. 1982	Sep. to Oct.	1982 to 1983
842.7	828.6	818.5	+14.1	+24.2	256.3	253.7	249.9	+2.6	+6.4
50.6	51.4	71.7	-0.8	-21.1	18.8	19.1	27.0	-0.3	-8.2
6.0	6.2	8.8	---	---	7.3	7.5	10.8	---	---
6.1	6.5	9.0	---	---	7.4	7.8	10.9	---	---
792.1	777.2	746.8	+14.9	+45.3	237.5	234.6	222.9	+2.9	+14.6

3E USED FOR ECONOMIC ASSISTANCE PROGRAMS.

NONAGRICULTURAL WAGE AND SALARY EMPLOYMENT BY PLACE OF WORK

680.9	670.6	655.9	+10.3	+25.0	198.8	196.9	192.1	+1.9	+6.7
111.8	111.7	108.6	+0.1	+3.2	26.8	26.7	25.2	+0.1	+1.6
88.4	88.4	85.9	+0.0	+2.5	21.9	21.7	20.4	+0.2	+1.5
3.5	3.8	2.9	-0.3	+0.6					
8.7	9.1	9.6	-0.4	-0.9					
49.3	48.9	48.7	+0.4	+0.6					
26.9	26.6	24.7	+0.3	+2.2					
23.4	23.3	22.7	+0.1	+0.7	4.9	5.0	4.8	-0.1	+0.1
5.2	5.3	5.7	-0.1	-0.5					
2.5	2.4	2.3	+0.1	+0.2					
8.9	8.8	8.6	+0.1	+0.3					
6.8	6.8	6.1	+0.0	+0.7					
0.6	0.5	0.6	+0.1	+0.0	3.4	3.4	3.9	+0.0	-0.5
51.9	51.6	43.0	+0.3	+8.9	15.1	15.1	12.1	+0.0	+3.0
35.5	35.4	35.5	+0.1	+0.0	8.7	8.8	9.1	-0.1	-0.4
15.3	15.3	15.1	+0.0	+0.2	3.9	3.9	4.0	+0.0	-0.1
20.2	20.1	20.4	+0.1	-0.2	4.8	4.9	5.1	-0.1	-0.3
172.1	169.5	169.2	+2.6	+2.9	43.1	42.8	43.2	+0.3	-0.1
41.3	40.7	40.1	+0.6	+1.2	6.1	6.1	5.9	+0.0	+0.2
130.8	128.8	129.1	+2.0	+1.7	37.0	36.7	37.3	+0.3	-0.3
23.7	23.1	23.8	+0.6	-0.1	6.7	6.5	7.1	+0.2	-0.4
21.1	20.9	20.9	+0.2	+0.2	5.2	5.2	5.4	+0.0	-0.2
14.8	14.8	14.7	+0.0	+0.1	4.3	4.3	4.4	+0.0	-0.1
43.0	42.5	42.4	+0.5	+0.6	13.3	13.2	12.9	+0.1	+0.4
28.2	27.5	27.3	+0.7	+0.9	7.5	7.5	7.5	+0.0	+0.0
48.6	48.4	48.0	+0.2	+0.6	9.4	9.4	8.7	+0.0	+0.7
153.2	148.8	146.5	+4.4	+6.7	44.8	44.2	43.2	+0.6	+1.6
13.9	12.4	13.4	+1.5	+0.5	3.4	3.2	3.1	+0.2	+0.3
35.4	34.7	32.7	+0.7	+2.7	6.3	6.2	6.1	+0.1	+0.2
41.8	41.4	40.3	+0.4	+1.5	13.4	13.4	13.4	+0.0	+0.0
62.1	60.3	60.1	+1.8	+2.0	21.7	21.4	20.6	+0.3	+1.1
107.2	104.7	104.5	+2.5	+2.7	47.5	46.5	46.7	+1.0	+0.8

-- Prepared by Labor Market Information, Research and Analysis (CPS-MOD, 1/83)

NONMETROPOLITAN COUNTIES LABOR FORCE AND EMPLOYMENT

October 1983 (Preliminary)

	Apache	Cochise	Coconino	Gila	Graham	Greenlee	La Paz
TOTAL CIVILIAN LABOR FORCE*.	14,800	30,275	36,125	14,750	8,400	3,825	5,150
Total Unemployment	2,200	2,725	2,850	2,575	1,325	275	700
Rate	14.9%	9.0%	7.9%	17.5%	15.8%	7.2%	13.6%
Rate (Seas. Adj.)**. . . .	15.4%	9.4%	8.7%	17.5%	15.7%	6.7%	-INA-
Total Employment	12,600	27,550	33,275	12,175	7,075	3,550	4,450

THE ABOVE LABOR FORCE STATISTICS SHOULD NOT BE USED
FOR ECONOMIC ASSISTANCE PROGRAMS

	Apache	Cochise	Coconino	Gila	Graham	Greenlee	La Paz
TOTAL WAGE AND SALARY. . . .	12,875	22,200	30,975	9,700	4,400	3,025	2,550
Manufacturing.	500	2,275	2,400	1,375	100	350	125
Mining and Quarrying	25	400	50	1,575	75	1,625	0
Construction	1,450	675	1,125	400	175	50	100
Trans., Comm., & Pub. Util..	1,600	1,400	2,275	325	175	50	50
Trade.	1,025	4,175	7,475	1,750	1,325	275	900
Fin., Insur., & Real Estate.	125	550	750	225	125	25	125
Services and Miscellaneous .	3,050	2,725	6,775	1,475	625	75	625
Government	5,100	10,000	10,125	2,575	1,800	575	625

	Mohave	Navajo	Pinal	Santa Cruz	Yavapai	Yuma
TOTAL CIVILIAN LABOR FORCE*.	22,775	24,000	32,950	9,500	32,600	36,500
Total Unemployment	2,875	2,875	5,075	2,725	2,450	5,600
Rate	12.6%	12.0%	15.4%	28.7%	7.5%	15.3%
Rate (Seas. Adj.)**. . . .	12.8%	12.2%	15.3%	25.6%	7.7%	-INA-
Total Employment	19,900	21,125	27,875	6,775	30,150	30,900

THE ABOVE LABOR FORCE STATISTICS SHOULD NOT BE USED
FOR ECONOMIC ASSISTANCE PROGRAMS

	Mohave	Navajo	Pinal	Santa Cruz	Yavapai	Yuma
TOTAL WAGE AND SALARY. . . .	15,075	16,325	23,425	6,625	17,900	21,950
Manufacturing.	2,250	1,675	2,475	725	1,900	1,625
Mining and Quarrying	275	1,100	5,325	25	1,050	75
Construction	975	625	725	175	1,125	1,750
Trans., Comm., & Pub. Util..	925	1,600	925	500	825	975
Trade.	4,425	3,425	3,625	2,675	4,625	6,875
Fin., Insur., & Real Estate.	600	300	575	250	725	675
Services and Miscellaneous .	2,425	3,450	1,825	900	3,350	3,725
Government	3,200	4,150	7,950	1,375	4,300	6,250

*Adjusted to the Current Population Survey (CPS) to reflect place of residence.
**Seasonal adjustment not applicable for economic assistance programs.

NOTE--Series for Yuma and La Paz counties start January 1983. Data are not comparable to any past series.

ARIZONA LABOR FORCE AND EMPLOYMENT FOR ECONOMIC ASSISTANCE PROGRAMS
September 1983 (Preliminary)

County	Civilian Labor Force	Employment	Unemployment	Rate
Statewide	1,351,407	1,245,036	106,371	7.9%
Apache	14,913	12,515	2,398	16.1
Cochise	30,029	27,291	2,738	9.1
Coconino	36,525	33,691	2,834	7.8
Gila	14,614	11,744	2,870	19.6
Graham	8,408	6,989	1,419	16.9
Greenlee	3,571	3,378	193	5.4
La Paz	5,196	4,456	740	14.2
Maricopa	829,225	777,829	51,396	6.2
Mohave	22,662	19,752	2,910	12.8
Navajo	23,921	21,028	2,893	12.1
Pima	252,480	233,448	19,032	7.5
Pinal	32,265	27,198	5,067	15.7
Santa Cruz	9,304	6,751	2,553	27.4
Yavapai	31,800	29,438	2,362	7.4
Yuma	36,494	29,528	6,966	19.1

Data have been adjusted to the 1972 Standard Industrial Classification (SIC). These figures are the only official BLS labor statistics to be used for revenue sharing purposes. They are not designed to be used as economic indicators. Note: Series for Yuma and La Paz counties start January 1983. Data are not comparable to any past series.

ESTIMATED HOURS AND EARNINGS OF PRODUCTION WORKERS IN SELECTED INDUSTRIES IN ARIZONA

INDUSTRY	AVERAGE WEEKLY EARNINGS			AVERAGE WEEKLY HOURS			AVG. HOURLY EARNINGS		
	OCT.* 1983	SEP. 1983	OCT. 1982	OCT.* 1983	SEP. 1983	OCT. 1982	OCT.* 1983	SEP. 1983	OCT. 1982
FOR THE STATE OF ARIZONA*									
Manufacturing	373.60	368.83	334.18	41.1	40.8	38.5	9.09	9.04	8.68
Aircraft & Missiles	494.04	495.03	452.35	42.7	43.5	41.5	11.57	11.38	10.90
Food & Kindred Products	338.91	338.91	317.12	39.5	39.5	40.5	8.58	8.58	7.83
Primary Metals	462.53	461.77	436.45	38.1	37.3	36.1	12.14	12.38	12.09
Machinery	351.78	353.38	298.40	41.0	40.9	37.3	8.58	8.64	8.00
Copper Mining	493.98	513.32	485.58	36.7	38.8	36.4	13.46	13.23	13.34
Construction	457.14	454.21	461.10	38.0	37.2	35.8	12.03	12.21	12.88
Utilities	516.40	516.40	461.20	43.8	43.8	41.7	11.79	11.79	11.06
Retail Trade**	216.41	217.03	210.80	33.5	33.7	34.0	6.46	6.44	6.20
Wholesale Trade	347.11	347.11	326.10	39.4	39.4	38.5	8.81	8.81	8.47

* Preliminary

** Excludes eating and drinking places.

NOTE--These estimates are based on a sample of full and part-time production and related employees whose payroll and hours are reported for the pay period which includes the 12th of the month. All data has been adjusted to the 1972 Standard Industrial Classifications (SIC).

--Prepared by Labor Market Information, Research and Analysis (1972 SIC, 1/83)

UNEMPLOYMENT STATISTICS - WHO GETS COUNTED?

The unemployment rate is such a familar indicator of economic conditions that everyone assumes they know what it means. But who gets counted - and who doesn't - can cause confusion.

Basically, the unemployment rate is an expression of all unemployed persons as a percent of the civilian labor force:

$$\text{Unemployment Rate} = \frac{\text{Total Unemployment}}{\text{Total Labor Force}}$$
(Unemployment + Employment)

Counted as unemployed are those persons 16 years or older who:

- Did not work at all during the survey week;
- Are currently available for work; and
- Made specific efforts to find a job sometime within the previous four weeks; or, were waiting to be called back to a job from which they had been laid off or were waiting to report to a new wage or salary job within 30 days.

Individuals under 16 years of age are not included in the count of unemployed. Neither are "Discouraged Workers," who are not seeking work because they believe none is available, or lack the skills necessary to compete in the labor market. Naturally, if these individuals were included, unemployment rates would differ dramatically. This is precisely the case with unemployment rates computed for the Navajo reservation. Until recently, Navajo tribal officials claimed the rate on the reservation was close to 80 percent. But in October, tribal officials reported an unemployment rate of 35.3 percent. The difference is not due to an upsurge in employment on the reservation but to a conversion to the U. S. Department of Labor system of determining unemployment.

Counted as employed are all persons 16 years and older, who, during the survey week:

- Did any work at all as paid employees (including part-time or temporary work);
- Worked in their own business or profession; or,
- Worked 15 hours or more as unpaid workers in a family business.

Also included as employed are those who were not working but had jobs or businesses from which they were temporarily absent for personal reasons, illness, bad weather, or vacations. Furthermore, those not working because of a labor dispute are counted as employed. This accounts in large part for the September drop in the unemployment rate for Greenlee County from 9.5 percent to 5.6 percent - union members striking against Phelps Dodge Corp. at its Morenci branch are counted as employed as well as those hired by Phelps Dodge to replace them.

ARIZONA UNEMPLOYMENT INSURANCE ACTIVITIES - SEPTEMBER

	September 1983	August 1983	September 1982	% Change From One Year Ago
Arizona Claimants Served**	37,642	43,043	68,025	-44.7%
Arizona Average Weeks Unemployed***	9.8	10.2	10.3	- 4.9%
Arizona Benefits Paid**	$ 12,068,404	$ 14,442,909	$ 23,492,204	-48.6%
Arizona Trust Fund Balance	$169,625,213	$177,707,565	$238,978,667	-29.0%

*Estimated **All Programs ***UI Only

NEW DEVELOPMENTS

Manufacturing - Gates Learjet Corp. has formed a joint venture with Rinaldo Piaggio to develop and manufacture a new turbo-prop business aircraft with a distinctive forward wing on the nose. The GP-180 will be manufactured both in Italy and the United States, with production at the Tucson plant to begin late in 1985. The target date for certification and delivery is in the fourth quarter of 1986.

Plans by Gates Learjet to recall workers to build 80 business jets to be leased to the Air Force under a recently awarded $175.4 million contract have been cut back since the company's September announcement. Recall at the Tucson plant will begin after the first of the year and will probably be less than 550 workers. The original estimate was 900.

The Navy has awarded a $1.5 million contract to the GenRad Inc., Service Products Division for printed-circuit-board-testers. The units will be used aboard ship and at shore installations. The Phoenix-based division of GenRad has 230 workers.

Mining - Phelps Dodge hopes to reopen the New Cornelia Smelter in Ajo by mid-1984 after renovation that probably will cost more than $1 million. The smelter was closed in April of 1982 because of needed repairs to the acid plant required by an agreement with the Environmental Protection Agency. Some 180 to 200 workers were idled by the closure.

Transportation - A 1,300 mile pipeline capable of carrying 800,000 barrels of heavy crude oil daily from California offshore wells to Texas is to cut across southern Arizona, according to a spokesman for All American Pipeline Co. of Wichita, Kansas. Construction will begin late in 1984 or early in 1985 and is to be completed early in 1987. Two construction crews that will operate in Arizona will tap the local labor force. Local workers also will be hired to maintain the line after it is built.

Plans for another crude-oil pipeline were announced about a year ago, by Pacific Texas Pipeline Co. of Long Beach, California. Construction is to begin next summer on that 1,026 mile, $1.66 billion pipeline, which is to carry 900,000 barrels of crude a day.

Terminal 3 at Sky Harbor Airport will be expanded to provide additional gates and space needed by America West and Northwest Airlines. The city of Phoenix will finance $7 million of the expansion cost through revenue bonds. America West and Northwest airlines plan to spend $2.5 million of their own money on the project. Completion is scheduled for July, 1984.

Utilities - Arizona Public Service Co. has agreed to sell its natural-gas distribution system to Las Vegas, Nevada-based Southwest Gas Corp. for more than $100 million. The transaction will take about a year to complete and must be approved by the state Corporation Commission.

The sale will affect approximately 650 APS employees but it is anticipated that Southwest will hire most of those workers. Southwest currently has 400 employees in Arizona. The company moved into the state in 1957 to serve Casa Grande and in 1979 purchased Tucson Electric Power Co.'s gas system.

Trade - Arizona's urban consumers plan more extensive Christmas shopping this year than last season. This is according to a survey of 560 residents of Maricopa and Pima Counties by the Behavior Research Center of Arizona. The survey found that retail shopping will be most agressive among consumers under 35 years of age and in Maricopa County.

In a parallel study conducted in 1982, close to four of every ten consumers were planning to cut back on Christmas shopping. This year, only 28% foresee reduced buying. Seven out of ten will be spending at the same or higher levels than a year ago.

Finance and Real Estate - The Arizona Banking Department has approved formation of the Bank of Casa Grande Valley with $2 million capitalization. "Economic conditions favor a community bank directed by a community-board to serve Casa Grande," says Charles Lawrence, chairman of the bank's 14-member board of directors.

Land Resources, a $220 million corporation involved in the development and sale of land in Florida and California, moved its headquarters to Scottsdale effective October 17th. The company specializes in the acquisition, sales and management of undeveloped real estate.

Services - Burr-Brown Corp.'s wholly owned subsidiary Burr-Brown International Holding Corp. has formed a new division called Burr-Brown Educational Services and Training. Programs to train microelectronics assemblers, wafer fabricators and electronic technicians have already been developed and used within Burr-Brown and will be among those to be initially marketed.

The U. S. Department of Defense has awarded GTE Network Systems a $1.3 million contract for computer software required to help modernize a worldwide defense information network. The project will be focused in Phoenix at GTE Network Systems' research and development facility.

The Blue Cross/Blue Shield Association of America awarded Tempe-based Micor-Net a $2.7 million contract to enhance and expand Plan-Net, the Blue Cross/Blue Shield nationwide data network. Plan-Net is the largest private wire health care network in the United States. Under the contract, Micro-Net will upgrade both the computer hardware and the system software to include interactive (two-way) traffic.

Corrections - A state prison to be occupied by 200 inmates by April 1st is planned for Douglas. The Arizona Department of Corrections expects within 18 months to hold a total of 800 medium-security prisoners and 100 minimum-security inmates in the prison, located in an airfield eight miles from Douglas. In addition, the Department of Corrections is in the process of acquiring two Douglas motels which will be converted into "DWI Centers" to house 250 prisoners.

The prison intends to hire as many Douglas-area residents as possible to work as guards and counselors. A training academy for guards will be conducted at Cochise Community College.

Layoffs - Maricopa County laid off 74 employees and abolished 298 other jobs on October 21st in what was termed the first phase of large-scale layoffs of employees at Maricopa Medical Center and county health clinics. The 372 positions were eliminated because of the loss of a contract under the state's indigent health services program (AHCCCS). The largest group affected by the layoffs were nursing assistants - 21 were laid off.

Adolfo Echeveste, the county's Department of Health Services director, said that the second phase of the layoffs will occur by January and will include doctors.

Hughes Aircraft Company has laid off some 70 employees at its Tucson missile plant due to a shortage of parts from subcontractors. The bulk of the workers affected are assemblers and they will be laid off for an indefinite time. Hughes employs about 6,000 people in its Tucson plant in development and production of various missiles for the military.

Closures - Cyprus Specialty Steel Co. of Phoenix closed November 30th, putting 80 people out of work. Founded in 1952, Cyprus attributed its closure to general economic conditions and a poor long-term outlook for its products, pressure vessels and storage tanks. The company had employed 300 workers just three years ago.

Reynolds Metals Co. closed its plant in Phoenix on October 21st as expected. Of the 1,150 people employed at the plant two years ago and the 310 still on the work force when the shutdown plan was announced in July, only a few caretaker people remain. However, Reynolds intends to continue development of an industrial park begun in

1978 on the surrounding acreage. To date, 15 businesses employing about 1,000 workers either have located in the park or have construction under way.

Plans Dropped - Great Lakes Paper Co. of Canada has announced that its plans to build a paper mill in Navajo County have been abandoned because of the depressed newsprint market and other economic conditions. There are no plans to construct the plant at some future time according to a company spokesman. The firm had been seriously considering two sites, one south of Holbrook and the other in the McNary area.

Strike Update - There is still no progress in the strike against Anamax Corp. which began August 1st. Al Tellex, business representative of Teamsters Local 310, one of four striking Anamax unions, has said that even if a contract settlement is reached, copper industry conditions are such that Anamax may not recall the 350 production workers immediately.

Duval Corp.'s Sierrita Mine is fully staffed and operating after a short-lived strike called by its five unions. Agreements have been signed by the Electrical Workers, which negotiated separately, and the Teamsters Union. After the Teamsters signing, the other three Duval unions in the coalition - the Steelworkers, the Operating Engineers and the Laborers - withdrew their pickets and returned to work without a contract. Duval has taken the position that the agreement with the Teamsters is not binding on the other three unions because the Teamsters have not claimed to represent all members of the bargaining unit.

Duval Corp. reportedly lost $9 million in its metal-mining operations during the third quarter of this year.

Union and company negotiations remain deadlocked on the major economic issues that led to the months long strike against the Phelps Dodge Corp. A claim by the company that the union's "pattern" bargaining technique is an illegal procedure was dismissed by the National Labor Relations Board. The unions want Phelps Dodge to agree to a new contract such as the one signed by Kennecott Co., and later by several other producers, continuing cost-of-living pay.

In a related issue, leaders of 25 non-copper unions from Arizona, California and Utah have pledged financial support for the Copper Strike Relief Fund, from which more than $200,000 already has been spent. The financial condition of Phelps Dodge workers threatened with eviction from company housing was mentioned by union leaders as one reason for their action.

Phoenix voters approved ballot Proposition 100 that provides for the automatic firing of striking city workers. Those rehired would drop one pay grade and would have to wait twelve months for their first raise. Propostion 100 also prohibits binding arbitration to settle labor disputes. Rival Proposition 101, containing a provision calling for a fact finder or arbitrator to recommend settlements, was rejected by about 58 percent of the voters.

A nationwide strike was called against Greyhound Bus Lines Inc. by the Amalgamated Council of Greyhound Local Unions. Over 12,700 employees are affected, including 7,545 bus drivers, 3,470 terminal workers, 1,012 maintenance employees and 734 office workers. Greyhound Lines, a subsidiary of Greyhound Corp., Phoenix, maintains that it needs "industry parity" with other Class 1 intercity bus carriers. Company proposals include a roll back of wages and fringe benefits to August 1981 levels, a reduction of about 17 percent. Union negotiators dispute this figure, saying that additional features of the proposed contract would actually cut wages by 20 to 25 percent.

Greyhound has announced it will hire replacement workers for those who strike. The number of Arizona employees involved in the strike include 110 in Phoenix, 55 in Tucson and 39 in Flagstaff.

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Arizona Labor Market NEWSLETTER
Arizona Department of Economic Security

Vol. VIII No. 1
January 1984

Unemployment Rate

Seasonally Adjusted
November*

ARIZONA	7.2%
Maricopa Co.	5.7%
Pima Co.	6.9%
UNITED STATES	8.4%

Consumer Price Index

National-October
1967 - Base Year

Wage Earner/Clerical Worker -	301.3
% Chg. Yr. Ago	2.6
All Urban -	302.6
% Chg. Yr. Ago	2.9

Phoenix-3rd Qtr.
1977 - Base Year

All Urban -	173.2
% Chg. Yr. Ago	1.5

Producer Price Index

National-November*
1967 - Base Year

All Commodities-	305.6
% Chg. Yr. Ago	1.8
Finished Goods -	286.8
% Chg. Yr. Ago	.7

* Preliminary

PERSPECTIVES ON HIGH TECHNOLOGY

High technology has become today's "hot topic." Everyone seems to agree that it is a key factor in Arizona's economic future. But many questions remain: What, in fact, is high tech? What are its effects on Arizona's economy and labor market? And how should education respond?

To explore some possible answers to these questions, a panel was organized at the fall conference of the Arizona Career Information System and the Arizona Business-Industry-Education Council. Participating on the panel were Dr. Lee McPheters, Professor of Economics at Arizona State University; G. M. "Solly" Sollenberger of Sechler-Sollenberger Realty Investment Company; and Dr. Patrick Henderson, recently retired Superintendent of the Phoenix Union High School District. The panel was moderated by Bertha Landrum, Director of Occupational Education for Maricopa Community College District.

The title of the panel was "Perspectives on High Technology: Its Role in Arizona's Economy and Educational System." The remarks of the three panelists are excerpted below:

Dr. Lee McPheters (Arizona State University): "Over the past thirty years, there has been a transition in the Arizona economy from a natural resource-based economy to one structured more towards manufacturing. It used to be said that the 'Four C's' of the

Arizona economy were cotton, copper, cattle and citrus; now, it may be said, the "C's" are climate (tourism), construction, computers and chips (silicon).

"These changes in the Arizona economy become apparent by contrasting the sources of income in 1950 and 1980. In 1950, agriculture and trade were the two dominant industries, accounting for 18.7 percent and 19.5 percent respectively of Arizona's income. By 1980, agriculture had dropped to 3.4 percent and manufacturing's share of income had risen from 7.0 percent to 18.1 percent, with services also accounting for 18.1 percent and government 18.4 percent. Trade, the leader in 1950, had declined several points to 16.7 percent. These changes in the state's economy have brought Arizona more in line with the national economy in which the dominant sectors are manufacturing (25.9 percent) and services (17.7 percent).

"I anticipate that the processes seen in force from 1950 to 1980 will continue, with future growth to occur in construction (assuming a continued population influx) and manufacturing. Within manufacturing, the industries which will grow the fastest are what I define as "high tech"-computers and equipment, electronics and components, scientific instruments, and aviation and aerospace. These are the industries which led all others in Arizona in terms of growth in income generated for the years 1976 to 1982. They were followed by medical and health services, heavy construction, printing and publishing, chemicals and plastics, and business services. Notice that these are the fastest growing sectors of the Arizona economy in terms of income generated and not necessarily in terms of employment.

"When one considers employment, high technology industry presently accounts for approximately 6 percent of the Arizona labor force. This includes not only engineers but a wide variety of other workers such as managers, assemblers, technicians and office workers (the present ratio of engineers to all other high tech workers in Arizona is about 1 to 12). While 6 percent of the labor force may seem relatively low, it should be pointed out that high tech manufacturing is much more important in Arizona than in the national economy. For example, in 1980, high tech products as a proportion of the value of all manufacturing shipments was 5 percent for the U. S. and 32 percent for Maricopa County. So if someone works in manufacturing in Maricopa County, the chances are 1 out of 3 they work in high tech manufacturing; nationally, the chances are only 1 out of 20.

"Despite the relatively small employment figure, high tech industry is being courted so vigorously because of its very substantial economic impact. For example, an "average" high tech firm with 400 employees will produce a conservatively estimated economic impact (direct and indirect) of $37.5 million per year. In Maricopa County alone, the direct economic impact of high tech manufacturing (including payroll, purchases, construction, property taxes and fees, and contributions) was nearly $1.6 billion in 1980 and should reach $3 billion in the next four or five years. This will surpass the economic impact of agriculture and copper.

"While I think high tech manufacturing will continue to grow in Arizona, I do not believe its growth is automatic. My own view is that the best we can hope for in the next 10 years is a doubling in high tech employment. To make Arizona attractive to high tech industry will take a lot of work by government, business and education. But when you bring high tech in, you bring in high income industry with employment opportunities not only for engineers, but for persons with a wide range of training and education."

G. M. Sollenberger (Sechler-Sollenberger Realty Investment Co.): "I'd like to begin by talking briefly about the evolution of the Arizona economy. At the turn of the century, the primary industry was mining. Later, with the development of the Salt River Project, agriculture became significant. Then, after World War II, the services industry, particularly tourism, rose to importance. Also, since World War II, manufacturing became established in Arizona and it was triggered into real action when Motorola moved here in the mid-1950s and established what we know of today as our high tech industry.

"As Lee McPheters pointed out, a couple of the industries that were the creators of wealth and the importers of capital are dying industries - mining because of world competition and the automation of various processes involved and agriculture chiefly because of the restraints on the use of water. Since jobs result from the creation of wealth or the importation of capital, it is terribly important to replace mining and agriculture. The only other industry we have that really imports capital (but does not create wealth) is tourism. So the place where I believe we have the greatest potential for creating wealth and importing capital is the high tech industry.

"Now why is it that every state in the union wants the same thing we do? Because high tech industry is where the future is and it has a great number of desirable qualities. This potential is very great for Arizona. Our manufacturing growth in the last 10 years has been about 50 percent whereas the national average is about 4 percent. The reasons for our growth are two-fold: (1) we started from a very low base; and (2) our manufacturing growth has been tied up primarily in the expanding and advancing technologies industries (a term I prefer to "high tech").

"In order to continue this growth, we need to realize that the day of pinning our hopes on relocating firms has passed. The growth of jobs now will be principally from within, from the people, companies and businesses that are already in Arizona. To encourage that to happen, certain elements need to be present. I've ranked ourselves on some of these elements on a scale of 1 to 10. On our general business climate, I'd give us a 7. Quality of life (including cost of living, cultural and recreational activities, and transportation) is also important and I'd give us a rating of about 6. Arizona has a strong system of education; I'd give us an 8. And the last element I'll mention is where we're the lowest - the availability of venture capital. I'd give us a 1.

"If high tech manufacturing is going to continue to grow within Arizona, we need to improve these ratings and, finally, we need to encourage the spirit of entrepreneurism. Venture capital is one solution. But the Engineering Excellence Program and the Research Park at ASU will also contribute substantially by encouraging research and development activity leading to the establishment of new business and new companies headquartered here in Arizona. R & D means permanence - a company's roots are generally where its R & D function is located. Plants devoted exclusively to manufacturing are vulnerable to employment fluctuations due to outside and unforeseen influences."

Dr. Patrick Henderson (Phoenix Union High School District): "Public education is currently receiving more attention than it has since the 1920s. All this attention is encouraging and I am optimistic about the future. Meanwhile, education is taking its lumps. No less than ten commissioned task forces or study groups are telling us that public education must be strengthened. All the reports recommend more academic subjects - but with fewer electives - and all recommend a minimum of one unit in computer science at the high school level.

"I have no argument with the recommendations I have seen. My concern is that like so many other well-intentioned creations, we are being inundated about the necessity of getting all students involved in computers. Even our president is furthering the notion that the nation's ills will be cured by our new sweetheart industry as it spawns massive numbers of new jobs requiring sophisticated mathematical and engineering training while reducing, or even eliminating, opportunity for the unskilled.

"The evidence suggests it is not going to work that way. High tech is neither the place where most new jobs will be found nor will high tech require a vast upgrading of the skills of the American labor force. To the contrary, the expansion of the lowest skill jobs in the American economy will vastly outstrip the growth of high technology ones. And the proliferation of high technology industries and their products is far more likely to reduce the skill requirements for jobs in the U. S. economy than upgrade them.

"Last year the Labor Department projected that during the balance of the 1980s, jobs for computer programmers are expected to be about 150,000. Some 1.3 million new jobs are projected for janitors, nurse's aides and orderlies. That is nine semi or unskilled jobs in these categories alone for every computer programmer. In fact, no high tech job ever makes the Labor Department's Top Twenty in terms of total numbers of jobs added to the U. S. economy.

"New jobs for data-processing-machine mechanics will increase 148 percent, making it the fastest growing job category. But that large gain translates into an increase of less than 100,000 new jobs, while 800,000 new jobs are projected for fast food workers and kitchen helpers alone.

"Of course, occasional shortages of skilled workers will arise in particular occupations and industries as they have occurred historically. Both the economy and education system will have to make specific adjustments to alleviate them. But that is hardly the general shortage of skilled workers projected by those who have expressed concern about the effects of high tech.

"In fact, the most sophisticated equipment often means the worker requires less sophisticated skills. Workers will need to learn different skills rather than more demanding ones. For example, the new generation of office computers is specifically designed so that "No special computer skills are needed." The latest word processors can even correct typing and strong spelling skills are no longer required.

"In a recent publication of the Washington Post, writers Henry Levin and Russell Rumburger were quoted as saying, 'If the future of work is being written in Silicon Valley, the danger signs are already evident. Although there are clearly some high level executives, programmers, and engineers who are stiumulated by their jobs in the Valley, most workers in these industries are clerical employees, assembly workers, and low-level technicians, the challenge of whose labor may leave something to be desired.'

"I am not opposed to teaching students more math, science, and computer literacy. But we must recognize that only high level achievers in math and science will succeed in the high level management and engineering jobs that are being promoted by those committed to high tech as a way of life.

"We need to take a clear look at the job implications for high tech, rather than blindly accepting the folk wisdom on the subject. It must be understood that I believe most jobs in the future will exist because of high tech. So no one should conclude from my remarks that high tech will not play an increasingly important role in our lives.

"But is it possible that as we rush head-on into increasing standards and requirements for graduation, there may just be some other ingredients that are essential to a good education and to developing the well-adjusted productive human being? And might we be better off in education if we used the financial and manpower resources to do a better job of teaching students so that they will become more proficient in the basic skills, rather that tie those resources up in large quantities of technological hardware? I raise these questions as a word of caution and out of a concern for what is happening in public education in terms of resources.

"A front page story in the San Jose Mercury estimated that 'A third of all workers in the (Silicon) Valley are involved in drugs and alcohol and that drugs are largely responsible for thefts on the job, accidents and decreases in productivity and quality.' The simple explanation is that most of the jobs are routine, monotonous, and boring with little or no opportunity for upward mobility. There is a lot of work that can fit into that description, but high tech is the glamour industry, and students are being led to believe that all they have to do in order to get into such a glamour industry is to stay in school. You and I know they have to do a great deal more than stay in school and that is why I think we need to use some discretion in how we counsel students in terms of electronics and high technology. They need to understand that for everyone who succeeds in high tech, there will likely be nine others who will be doing something else. And of those working in high tech, most will be working in jobs with limited upward mobility. Some one must do those jobs, but it means that high schools will need to be somewhat cautious in training students and more selective in the programs for which students are being trained."

COMMUTING IN ARIZONA

Hugh Downes is probably Arizona's most famous commuter. He lives in Carefree, but works in New York City. That's some commute, even by airplane. Nevertheless, there are many in Arizona who commute to another county to work. The table of "Place of Work Destinations" for Arizona county residents from the 1980 census shows the magnitude of commuting that goes on between Arizona's counties, and from Arizona counties to counties of other states.

For instance, did you know that there are workers in the Phoenix area who live in every other county of the state? You may have suspected it when you were on the freeway on Monday morning heading for downtown Phoenix, but did you really think some commuters were from every other county?

There are other places of work that might seem unlikely for any Arizona county resident. For instance, would you have expected commuting between these locations?

Mohave County to Las Vegas, Nevada
Mohave County to San Bernadino, CA
Navajo County to Mesa
Yavapai County to Tucson
Yuma County to Riverside County, CA
Yuma County to San Diego SMSA, CA

Those are some of the longer commutes, but there are many that cross over multiple counties, despite the size of those counties and the distances to be traveled. When you consider that the U. S. Labor Department's definition of a labor market has a central concept requiring being able to change jobs without changing residence, you can see why that kind of definition sometimes breaks down in application. Arizonans are mobile people.

Note: Due to processing errors, those individuals working in Lake Havasu City were counted in Remainder of Mohave County.

PLACE OF WORK DESTINATION

APACHE COUNTY	
TOTAL LIVING IN	13255
WORKING IN:	
Apache County	10288
Navajo County	445
Greenlee County	10
Carron County, N. Mex.	4
Gallup, city of, N. Mex.	205
Remainder of McKinley County, N. Mex.	174
Farmington, city of, N. Mex.	27
Remainder of San Juan County, N. Mex.	182
Montezuma County, Colo.	6
San Juan County, Utah	7
Gila County	39
Phoenix, city of	46
Remainder of Phoenix, AZ SMSA	43
Coconino County	31
Worked elsewhere	166
Place of work not reported	1642
COCHISE COUNTY	
TOTAL LIVING IN	33014
WORKING IN:	
Tucson, city of	364
Remainder of Tucson, AZ SMSA	210
Sierra Vista, city of	6577
Bisbee, city of	1811
Douglas, city of	3984
Remainder of Cochise County	17033
Hildago County, N. Mex.	11
Mexico	40
Pima County	18
Gila County	28
Nogales, city of	6
Remainder of, Santa Cruz County	28
Graham County	32
Phoenix, city of	67
Remainder of Phoenix, AZ SMSA	44
Worked elsewhere	356
Place of work not reported	2355
COCONINO COUNTY	
TOTAL LIVING IN	29573
WORKING IN:	
Flagstaff, city of	16128
Remainder of Coconino County	9907
Navajo County	468
Gila County	14
Yavapai County	194
Mohave County	26
Kane County, Utah	43
Phoenix, city of	194
Scottsdale, city of	15
Tempe, city of	22
Mesa, city of	12
Remainder of Phoenix, AZ SMSA	341
Remainder of Las Vegas, Nev. SMSA	3
Apache County	41
Worked elsewhere	160
Place of work not reported	2005
GILA COUNTY	
TOTAL LIVING IN	11731
WORKING IN:	
Phoenix, city of	112
Scottsdale, city of	15
Remainder of Phoenix, AZ SMSA	33
Gila County	9238
Pinal County	165
Navajo County	420
Remainder of Coconino County	56
Apache County	19
Greenlee County	59
Remainder of Tucson, AZ SMSA	11
Worked elsewhere	39
Place of work not reported	1564

GRAHAM COUNTY

TOTAL LIVING IN	7393
WORKING IN:	
Tucson, city of	5
Remainder of Phoenix, AZ SMSA	6
Graham County	6085
Remainder of Cochise County	41
Gila County	166
Pinal County	14
Santa Cruz County	4
Greenlee County	579
Worked elsewhere	22
Place of work not reported	471

GREENLEE COUNTY

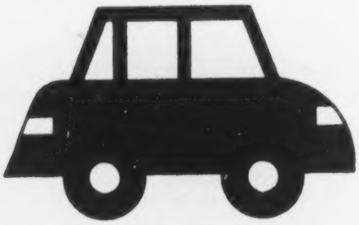
TOTAL LIVING IN	4032
WORKING IN:	
Greenlee County	3867
Graham County	5
Hidalgo County, N. Mex.	5
Navajo County	48
Gila County	20
Place of work not reported	117

MARICOPA COUNTY

TOTAL LIVING IN	658854
WORKING IN:	
Phoenix, central business dist.	55695
Phoenix, remainder of	302060
Glendale, city of	20611
Scottsdale, city of	41307
Tempe, city of	50133
Mesa, city of	43550
Chandler, city of	7300
Remainder of Maricopa County	65105
Tucson, city of	373
Remainder of Tucson, AZ SMSA	213
Casa Grande, city of	174
Remainder of Pinal County	2226
Yuma, city of	87
Remainder of Yuma County	109
Yavapai County	267
Gila County	316
Flagstaff, city of	164
Remainder of Coconino County	79
Mohave County	110
Mexico	36
Worked elsewhere	4233
Place of work not reported	64706

MOHAVE COUNTY

TOTAL LIVING IN	20688
WORKING IN:	
Remainder of Mohave County	16280
Las Vegas, city of, Nev.	37
Remainder of Las Vegas, Nev. SMSA	1290
Washington County, Utah	16
Kane County, Utah	26
Remainder of Coconino County	38
Yavapai County	64
Remainder of Yuma County	70
San Bernadino, city of, CA	16
Remainder of San Bernadino County, CA	278
Riverside County, CA	12
Mesa, city of	21
Remainder of Phoenix, AZ SMSA	13
Worked elsewhere	279
Place of work not reported	2248



NAVAJO COUNTY

TOTAL LIVING IN	20647
WORKING IN:	
Navajo County	17014
Apache County	623
Graham County	15
Gila County	95
Flagstaff, city of	13
Remainder of Coconino County	235
San Juan County, Utah	8
Phoenix, city of	65
Scottsdale, city of	12
Mesa, city of	44
Remainder of Phoenix, AZ SMSA	16
Yavapai County	15
McKinLey County, N. Mex.	33
Worked elsewhere	260
Place of work not reported	2199

PIMA COUNTY

TOTAL LIVING IN	220820
WORKING IN:	
Tucson, central business district	9981
Remainder of Tucson, city of	145334
South Tucson, city of	1339
Remainder of Pima County	43698
Phoenix, city of	379
Glendale, city of	15
Tempe, city of	50
Mesa, city of	19
Remainder of Phoenix, AZ SMSA	191
Casa Grande, city of	39
Remainder of Pinal County	2632
Sierra Vista, city of	116
Remainder of Cochise County	385
Nogales, city of	184
Remainder of Santa Cruz County	120
Graham County	37
Mexico	105
Yuma County	50
Worked elsewhere	1789
Place of work not reported	14357

PINAL COUNTY

TOTAL LIVING IN	30792
WORKING IN:	
Phoenix, city of	642
Scottsdale, city of	170
Tempe, city of	317
Mesa, city of	1200
Remainder of Phoenix, AZ SMSA	847
Tucson, city of	60
Remainder of Tucson, AZ SMSA	126
Case Grande, city of	5333
Remainder of Pinal County	17010
Remainder of Cochise County	11
Navajo County	21
Gila County	1529
Yavapai County	13
Coconino County	14
Yuma County	11
Worked elsewhere	47
Place of work not reported	3441

SANTA CRUZ COUNTY

TOTAL LIVING IN	7632
WORKING IN:	
Tucson, city of	65
Remainder of Tucson, AZ SMSA	202
Nogales, city of	4737
Remainder of Santa Cruz County	1391
Sierra Vista, city of	11
Remainder of Cochise County	80
Pinal County	11
Phoenix, city of	15
Mexico	133
Worked elsewhere	89
Place of work not reported	898

YAVAPAI COUNTY

TOTAL LIVING IN	22350
WORKING IN:	
Phoenix, city of	265
Tempe, city of	11
Mesa, city of	20
Remainder of Phoenix, AZ SMSA	137
Prescott, city of	8465
Remainder of Yavapai County	8141
Flagstaff, city of	32
Remainder of Coconino County	617
Mohave County	7
Yuma, city of	22
Remainder of Yuma County	23
Remainder of Tucson, AZ SMSA	27
Pinal County	12
Worked elsewhere	285
Place of work not reported	4236

YUMA COUNTY

TOTAL LIVING IN	33131
WORKING IN:	
Yuma, city of	13834
Remainder of Yuma County	14119
Yavapai County	36
Phoenix, city of	93
Tempe, city of	11
Glendale, city of	16
Tucson, city of	17
Remainder of Tucson, AZ SMSA	34
Mexico	34
El Centro, city of, CA	13
Remainder of Imperial County, CA	282
Riverside County, CA	296
San Bernadino County, CA	15
Remainder of San Diego, CA SMSA	42
Worked elsewhere	307
Place of work not reported	3982

ARIZONA UNEMPLOYMENT INSURANCE ACTIVITIES - OCTOBER

	October 1983	September 1983	October 1982	% Change From One Year Ago
Arizona Claimants Served**	35,749	37,642	73,480	-51.3%
Arizona Average Weeks Unemployed***	9.3	9.8	10.2	- 8.8%
Arizona Benefits Paid**	$ 10,249,204	$ 12,068,404	$ 23,474,395	-56.3%
Arizona Trust Fund Balance	$168,505,487	$169,625,213	$229,631,841	-26.6%

*Estimated **All Programs ***UI Only

ARIZONA RECEIVES FINAL JTPA ALLOCATION

Governor Bruce Babbitt was notified by the U. S. Department of Labor on November 17, 1983 of Arizona's final Job Training Partnership Act allocation. Arizona will receive $16,406,848 of JTPA Title II-A funds over the next nine months. Distribution of JTPA funds is based on allocation percentages contained in the Act. The state JTPA administration will receive 5 percent of the funds or $820,342. Six percent of the funds, or $984,410, will be set aside for technical assistance and incentive grants to the Service Delivery Areas. Eight percent of the funds, or $1,312,548, will be used by vocational education to establish vocational programs in the Service Delivery Areas. Three percent of the funds, or $492,205, will be used by the Service Delivery Areas to establish training programs for older workers. The remaining 78% of the funds, or $12,797,341, will be distributed to the Service Delivery Areas to establish their training programs.

Funds are distributed to the Service Delivery Areas according to a formula contained in the Act. The formula consists of three equal elements: 1) the number of people in an "area of substantial unemployment" (ASU); 2) the number of people who are excess unemployed over 4.5 percent; and 3) the number of people in poverty. The table below details the allocations to Arizona's eleven Service Delivery Areas.

Jeffrey D. Bowman

	ASU*	OVER 4.5%	POVERTY	TOTAL
Phoenix	$1,183,058	$ 937,830	$1,096,358	$ 3,217,247
Maricopa	865,187	596,640	857,636	2,319,464
Pima	735,687	696,099	728,477	2,160,264
Sixco	444,212	539,150	343,730	1,327,092
Yuma	179,550	248,074	139,339	566,965
Santa Cruz	54,457	78,237	44,573	177,268
Gila-Pinal	222,072	291,235	195,359	708,667
Greenlee	64,915	110,653	12,391	187,959
Cochise	115,175	134,063	131,478	380,717
Graham	45,205	64,037	35,461	144,674
All Reservation	356,257	569,757	681,003	1,607,018
Arizona Total	$4,265,780	$4,265,780	$4,265,780	$12,797,341

(All estimates are rounded to nearest dollar)

*A contiguous area with a current population of at least 10,000 and a 12-month average unemployment rate of at least 6.5 percent for the reference period (May 1982 to April 1983 for FY 1984). Arizona's unemployment rate during the reference period was 10.8 percent, qualifying the entire state as an area of substantial unemployment for JTPA allocations in the current fiscal year.

Arizona Labor Force and Employment

November 1983 (in thousands)

	ARIZONA				
				-- Amt Change --	
	Nov.* 1983	Oct. 1983	Nov. 1982	Oct. to Nov.	1982 to 1983
TOTAL CIVILIAN LABOR FORCE	1393.1	1372.9	1350.1	+20.2	+43.0
Total Unemployment	98.8	104.9	143.8	-6.1	-45.0
Rate	7.1	7.6	10.7	---	---
Rate (Sea. Adj.)**	7.2	7.8	10.9	---	---
Total Employment	1294.3	1268.0	1206.3	+26.3	+88.0

THE ABOVE LABOR FORCE STATISTICS SHOULD

NONAGRICULTURAL WAGE AND SALARY EMPLOYMENT BY PLACE OF WORK

TOTAL WAGE AND SALARY	1076.9	1067.6	1039.5	+9.3	+37.4
Manufacturing	156.9	156.4	148.9	+0.5	+8.0
Durable Goods	122.2	121.3	114.5	+0.9	+7.7
Stone, Clay and Glass	5.9	5.8	4.9	+0.1	+1.0
Primary and Fabricated Metals	13.7	13.8	14.5	-0.1	-0.8
Primary Metals	6.0	6.3	6.7	-0.3	-0.7
Fabricated Metals	7.7	7.5	7.8	+0.2	-0.1
Machinery	62.3	61.8	59.5	+0.5	+2.8
Other Durable Goods	40.3	39.9	35.6	+0.4	+4.7
Aircraft and Missiles	18.3	18.2	16.6	+0.1	+1.7
Lumber and Wood Products (Except Furniture)	6.2	6.2	4.8	+0.0	+1.4
All Other Durable Goods	15.8	15.5	14.2	+0.3	+1.6
Nondurable Goods	34.7	35.1	34.4	-0.4	+0.3
Food and Kindred Products	7.9	8.6	8.8	-0.7	-0.9
Apparel	5.1	5.0	5.0	+0.1	+0.1
Printing and Publishing	12.3	12.1	11.7	+0.2	+0.6
All Other Nondurable Goods	9.4	9.4	8.9	+0.0	+0.5
Mining and Quarrying	15.6	15.6	16.0	+0.0	-0.4
Copper Mining	12.6	12.6	13.0	+0.0	-0.4
Other Mining and Quarrying	3.0	3.0	3.0	+0.0	+0.0
Construction	76.3	76.4	64.7	-0.1	+11.6
Trans., Communications, and Public Utilities	56.3	55.9	56.4	+0.4	-0.1
Transportation	23.7	23.5	23.6	+0.2	+0.1
Communications and Public Utilities	32.6	32.4	32.8	+0.2	-0.2
Trade	262.5	257.7	258.5	+4.8	+4.0
Wholesale Trade	52.4	51.8	51.2	+0.6	+1.2
Retail Trade	210.1	205.9	207.3	+4.2	+2.8
General Merchandise and Apparel	39.0	37.1	39.7	+1.9	-0.7
Food Stores	33.2	32.8	33.2	+0.4	+0.0
Automotive and Service Stations	24.2	24.3	24.3	-0.1	-0.1
Eating and Drinking Places	71.5	70.5	69.2	+1.0	+2.3
Other Retail Trade	42.2	41.2	40.9	+1.0	+1.3
Finance, Insurance, and Real Estate	63.4	63.0	61.8	+0.4	+1.6
Services and Miscellaneous	232.0	229.3	222.7	+2.7	+9.3
Hotels and Other Lodging Places	24.0	23.4	23.2	+0.6	+0.8
Business Services	43.8	43.3	41.0	+0.5	+2.8
Health Services	63.2	62.7	61.3	+0.5	+1.9
Other Services	101.0	99.9	97.2	+1.1	+3.8
Government	213.9	213.3	210.5	+0.6	+3.4
Federal	39.0	38.9	38.1	+0.1	+0.9
State and Local	174.9	174.4	172.4	+0.5	+2.5
School	109.5	108.6	106.6	+0.9	+2.9

* Preliminary
** Normal seasonal variations have been eliminated to reflect underlying economic trends.
NOTE--Data has been adjusted to the 1972 Standard Industrial Classifications (SIC).

November 1983 (in thousands)

MARICOPA COUNTY					PIMA COUNTY				
			-- Amt Change --					-- Amt Change --	
Nov.* 1983	Oct. 1983	Nov. 1982	Oct. to Nov.	1982 to 1983	Nov.* 1983	Oct. 1983	Nov. 1982	Oct. to Nov.	1982 to 1983
860.1	843.9	824.0	+16.2	+36.1	260.7	256.5	251.9	+4.2	+8.8
48.3	51.0	71.2	-2.7	-22.9	18.0	19.0	26.9	-1.0	-8.9
5.6	6.0	8.6	---	---	6.9	7.4	10.7	---	---
5.7	6.2	8.8	---	---	6.9	7.4	10.8	---	---
811.8	792.9	752.8	+18.9	+59.0	242.7	237.5	225.0	+5.2	+17.7

NOT BE USED FOR ECONOMIC ASSISTANCE PROGRAMS.

NONAGRICULTURAL WAGE AND SALARY EMPLOYMENT BY PLACE OF WORK

689.7	681.6	661.1	+8.1	+28.6	200.9	199.0	193.9	+1.9	+7.0
112.8	111.9	107.3	+0.9	+5.5	27.0	26.8	25.4	+0.2	+1.6
89.3	88.5	84.3	+0.8	+5.0	22.1	21.9	20.6	+0.2	+1.5
3.6	3.5	2.9	+0.1	+0.7					
8.9	8.8	9.6	+0.1	-0.7					
49.6	49.3	47.1	+0.3	+2.5					
27.2	26.9	24.7	+0.3	+2.5					
23.5	23.4	23.0	+0.1	+0.5	4.9	4.9	4.8	+0.0	+0.1
5.1	5.3	6.0	-0.2	-0.9					
2.6	2.5	2.2	+0.1	+0.4					
9.0	8.8	8.6	+0.2	+0.4					
6.8	6.8	6.2	+0.0	+0.6					
0.6	0.6	0.6	+0.0	+0.0	3.4	3.4	3.9	+0.0	-0.5
52.2	52.0	43.4	+0.2	+8.8	15.2	15.1	12.4	+0.1	+2.8
35.9	35.5	35.5	+0.4	+0.4	8.7	8.8	9.0	-0.1	-0.3
15.6	15.2	15.2	+0.4	+0.4	3.8	3.9	3.9	-0.1	-0.1
20.3	20.3	20.3	+0.0	+0.0	4.9	4.9	5.1	+0.0	-0.2
175.5	171.9	172.7	+3.6	+2.8	44.0	43.2	43.6	+0.8	+0.4
41.4	41.2	40.4	+0.2	+1.0	6.2	6.1	5.8	+0.1	+0.4
134.1	130.7	132.3	+3.4	+1.8	37.8	37.1	37.8	+0.7	+0.0
25.1	23.7	25.4	+1.4	-0.3	7.1	6.7	7.5	+0.4	-0.4
21.4	21.1	21.3	+0.3	+0.1	5.3	5.2	5.4	+0.1	-0.1
14.7	14.7	14.7	+0.0	+0.0	4.2	4.3	4.4	-0.1	-0.2
44.0	43.0	43.0	+1.0	+1.0	13.4	13.3	12.9	+0.1	+0.5
28.9	28.2	27.9	+0.7	+1.0	7.8	7.6	7.6	+0.2	+0.2
49.0	48.6	47.9	+0.4	+1.1	9.4	9.4	8.7	+0.0	+0.7
155.4	153.5	147.8	+1.9	+7.6	45.7	44.8	43.6	+0.9	+2.1
14.4	13.9	14.0	+0.5	+0.4	3.7	3.4	3.2	+0.3	+0.5
35.8	35.4	33.2	+0.4	+2.6	6.5	6.3	6.2	+0.2	+0.3
42.2	41.8	40.5	+0.4	+1.7	13.6	13.5	13.5	+0.1	+0.1
63.0	62.4	60.1	+0.6	+2.9	21.9	21.6	20.7	+0.3	+1.2
108.3	107.6	105.9	+0.7	+2.4	47.5	47.5	47.3	+0.0	+0.2

-- Prepared by Labor Market Information, Research and Analysis (CPS-MOD, 1/83)

NONMETROPOLITAN COUNTIES LABOR FORCE AND EMPLOYMENT
November 1983 (Preliminary)

	Apache	Cochise	Coconino	Gila	Graham	Green-lee	La Paz
TOTAL CIVILIAN LABOR FORCE*.	14,900	29,775	36,400	14,650	8,300	3,850	5,300
Total Unemployment	2,100	2,750	3,050	2,625	1,125	275	725
Rate	14.1%	9.2%	8.4%	17.9%	13.6%	7.1%	13.7%
Rate (Seas. Adj.)**. . . .	14.0%	9.2%	8.8%	17.6%	13.7%	6.7%	-INA-
Total Employment	12,800	27,025	33,350	12,025	7,175	3,575	4,575

THE ABOVE LABOR FORCE STATISTICS SHOULD NOT BE USED
FOR ECONOMIC ASSISTANCE PROGRAMS

	Apache	Cochise	Coconino	Gila	Graham	Green-lee	La Paz
TOTAL WAGE AND SALARY. . . .	12,925	21,600	30,700	9,475	4,400	3,025	2,550
Manufacturing.	550	1,600	2,450	1,175	100	350	125
Mining and Quarrying	25	400	50	1,550	75	1,625	0
Construction	1,450	675	1,075	400	175	25	100
Trans., Comm., & Pub. Util..	1,625	1,400	2,250	325	175	50	50
Trade.	1,025	4,175	7,425	1,750	1,325	275	900
Fin., Insur., & Real Estate.	125	525	750	225	125	25	125
Services and Miscellaneous .	3,025	2,700	6,600	1,475	625	75	625
Government	5,100	10,125	10,100	2,575	1,800	600	625

	Mohave	Navajo	Pinal	Santa Cruz	Yavapai	Yuma
TOTAL CIVILIAN LABOR FORCE*.	22,700	24,150	33,100	9,375	32,775	37,000
Total Unemployment	2,950	2,750	4,525	2,300	2,400	5,025
Rate	13.0%	11.4%	13.7%	24.5%	7.3%	13.6%
Rate (Seas. Adj.)**. . . .	13.4%	11.4%	14.1%	22.8%	7.4%	-INA-
Total Employment	19,750	21,400	28,575	7,075	30,375	31,975

THE ABOVE LABOR FORCE STATISTICS SHOULD NOT BE USED
FOR ECONOMIC ASSISTANCE PROGRAMS

	Mohave	Navajo	Pinal	Santa Cruz	Yavapai	Yuma
TOTAL WAGE AND SALARY. . . .	14,775	16,400	23,675	6,875	17,825	22,375
Manufacturing.	2,250	1,650	2,650	775	1,900	1,650
Mining and Quarrying	275	1,075	5,325	25	1,025	75
Construction	950	625	625	175	1,075	1,725
Trans., Comm., & Pub. Util..	925	1,625	975	525	850	975
Trade.	4,425	3,425	3,625	2,850	4,600	7,175
Fin., Insur., & Real Estate.	600	300	575	250	725	650
Services and Miscellaneous .	2,425	3,575	1,825	900	3,350	3,750
Government	2,925	4,125	8,075	1,375	4,300	6,375

*Adjusted to the Current Population Survey (CPS) to reflect place of residence.
**Seasonal adjustment not applicable for economic assistance programs.

NOTE--Series for Yuma and La Paz counties start January 1983. Data are not comparable to any past series.

ARIZONA LABOR FORCE AND EMPLOYMENT FOR ECONOMIC ASSISTANCE PROGRAMS
October 1983 (Preliminary)

County	Civilian Labor Force	Employment	Unemployment	Rate
Statewide	1,371,781	1,267,045	104,736	7.6%
Apache	14,869	12,613	2,256	15.2
Cochise	30,302	27,537	2,765	9.1
Coconino	36,135	33,257	2,878	8.0
Gila	14,767	12,173	2,594	17.6
Graham	8,399	7,085	1,314	15.6
Greenlee	3,819	3,550	269	7.0
La Paz	5,178	4,458	720	13.9
Maricopa	843,130	792,142	50,988	6.0
Mohave	22,908	19,886	3,022	13.2
Navajo	24,015	21,122	2,893	12.0
Pima	256,449	237,496	18,953	7.4
Pinal	33,035	27,875	5,160	15.6
Santa Cruz	9,505	6,775	2,730	28.7
Yavapai	32,650	30,160	2,490	7.6
Yuma	36,620	30,916	5,704	15.6

Data have been adjusted to the 1972 Standard Industrial Classification (SIC). These figures are the only official BLS labor statistics to be used for revenue sharing purposes. They are not designed to be used as economic indicators. Note: Series for Yuma and La Paz Counties start January 1983. Data are not comparable to any past series.

ESTIMATED HOURS AND EARNINGS OF PRODUCTION WORKERS IN SELECTED INDUSTRIES IN ARIZONA

INDUSTRY	AVERAGE WEEKLY EARNINGS			AVERAGE WEEKLY HOURS			AVG. HOURLY EARNINGS		
	NOV.* 1983	OCT. 1983	NOV. 1982	NOV.* 1983	OCT. 1983	NOV. 1982	NOV.* 1983	OCT. 1983	NOV. 1982
FOR THE STATE OF ARIZONA*									
Manufacturing	373.35	369.74	339.00	41.3	40.9	39.1	9.04	9.04	8.67
Aircraft & Missiles	518.15	494.77	474.18	44.4	42.8	42.0	11.67	11.56	11.29
Food & Kindred Products	321.92	333.48	312.43	39.5	39.7	39.8	8.15	8.40	7.85
Primary Metals	477.56	456.49	453.66	39.5	38.2	37.9	12.09	11.95	11.97
Machinery	346.47	351.78	310.03	41.1	41.0	38.9	8.43	8.58	7.97
Copper Mining	521.43	493.98	513.52	39.0	36.7	39.2	13.37	13.46	13.10
Construction	435.17	458.14	452.36	36.6	37.8	34.4	11.89	12.12	13.15
Utilities	544.36	544.36	492.42	45.1	45.1	43.5	12.07	12.07	11.32
Retail Trade**	216.05	214.09	213.97	33.6	33.4	34.4	6.43	6.41	6.22
Wholesale Trade	355.66	355.66	323.98	40.6	40.6	38.8	8.76	8.76	8.35

* Preliminary

** Excludes eating and drinking places.

NOTE--These estimates are based on a sample of full and part-time production and related employees whose payroll and hours are reported for the pay period which includes the 12th of the month. All data has been adjusted to the 1972 Standard Industrial Classifications (SIC).

--Prepared by Labor Market Information, Research and Analysis (1972 SIC, 1/83)

THE ARIZONA LABOR FORCE IN NOVEMBER 1983

For the eighth consecutive month, Arizona's unemployment rate continued to fall. The statewide rate now stands at 7.2 percent, its lowest level since December 1981, when the unemployment rate was 7.0 percent. Unless the economy suffers serious setbacks in the months ahead, the unemployment rate can be expected to continue its decline into next year. But its rapid descent of the last few months will not continue as the metropolitan areas begin to approach full employment.

During the last twelve months, the construction industry has led the recovery in both absolute and percentage terms. The additional 11,600 jobs, a 17.9 percent increase, is the result of a nearly record number of new housing units being built. Both single family and multi-family housing has risen substantially in the last year. But the pace will likely slow in the coming months as rising vacancy rates and rising housing costs restrict the number of people able to afford housing. This month's loss of 100 jobs was expected and is principally the result of cold winter weather in the rural counties and the completion of some flood repair work.

Manufacturing entered the recovery much later, hitting its low point in February. Since that time, 8,900 jobs have been added for an increase of 6.0 percent. Leading this improvement have been the state's high technology manufacturers and those businesses in the construction-related areas of lumber and aggregates. This too was the pattern of improvement in November. While durable manufacturing remains strong, the nondurables sector lost employment in November. But the loss reflects usual seasonal activity as food processing declines at the end of the chili season.

The other area of continued improvement has been the population serving industries of retail trade and services. Together they account for over 40 percent of all the jobs in the state. Their growth during the recession was severely curtailed as consumers reduced their purchases in response to weakening confidence in the economy. But now the rising tide of the economy in general has helped them to add 6,900 new workers during November. The advances were in nearly every sector, with department stores, restaurants, and lodging places accounting for the bulk of the increase. As has been the case for the last few months, it appears that winter tourism and Christmas business will be very strong this year.

While most of the economic news has been good recently, the state's copper mining industry continues to suffer. Another smelter stopped operations in November and the outlook into next year is not encouraging. While employment in copper mining is holding steady in the 12,600-12,800 range, the price of copper has been falling and inventories have been rising. Even the future price for copper to be delivered in nearly two years is only about 80 cents per pound. With the outlook for little price improvement in the months ahead, many firms may reevaluate their plans for operation in the months ahead.

In general, the recovery of 1983 has been very traditional in many ways. Initially, improvement came in the interest-sensitive industries of construction and automobiles. With the consumer gaining confidence, retail sales began to rise and the recovery continued to gain strength. Now with an apparently strong winter tourism and Christmas season taking shape, we appear poised to enter 1984 in much better shape than many people expected. If the recovery continues to follow the pattern of earlier periods, we can expect business activity to rise as inventories are replenished and new investment in plants and equipment are undertaken. But as has been identified by many people, high deficits will make borrowing money expensive and unless expansion can be financed by internally generated cash, this will have the effect of dampening what would otherwise be a strong recovery.

NEW DEVELOPMENTS

Construction - Construction has begun on Arrowhead Ranch, a $1 billion master-planned community expected to house 51,000 residents. Arrowhead Ranch is a 500 acre tract located in Glendale. Developed by the Paloma Corp., a Richardson, Texas subsidiary of Hunt-Stephens Investments, the project will take 10 years and will include five school and park sites, a convention-resort hotel and a regional shopping center.

The first phase of the $175 million Phoenix Gateway Center has begun. The office, commercial, and hotel complex is being built on the northwest corner of 44th and East Van Buren Streets. Total size is 1.5 million square feet.

Planning for the second phase of the project is also underway. The proposed $150 million development will be built on the northeastern corner of the same intersection and will contain the same mix of buildings that make up the Gateway Center. Total size will be smaller, containing 1 million square feet.

Construction of a multi-million dollar Honda motorcycle dealership owned by Coulter Cadillac begins this month in Chandler. The store is expected to open in July.

The Papago Tribe of Arizona has established a construction company using the combined resources of the tribal housing program, the Bureau of Indian Affairs, job training funds and a tribal skill center. The company, which had only three employees in April 1982, now employs a total of 105. It is currently building 21 houses, has an $800,000 contract to build a shopping center and a $3.3 million contract for a new school.

The first phase of development has begun on Williams Centre, a $500 million, 110 acre commercial office and retail complex in Tucson. The completed project will contain 2.75 million square feet.

Construction is underway on the new DeVry Institute of Technology complex on the southeast corner of 22nd Avenue and Dunlap. The 120,000 square foot center will accommodate 4,400 students.

An $11.8 million motel and resort-convention center will be built on Yavapai Prescott tribal land. The center is expected to create some 130 full- and part-time jobs, generating a $1 million payroll. The lease agreement guarantees that 30 of the jobs will go to tribal members, providing they are interested and qualified, and that training will be made available. Most of the construction will be financed by industrial revenue bonds. The $1.1 million UDAG funds awarded to the tribe will be loaned to the developer to help defray construction costs.

Construction has begun on the first of two midrise office buildings to be built on Central Avenue in Phoenix. The $42.5 million, 12-story structure is expected to be completed in about one year. The second phase will include a 15-story office building. No construction data has been set for that phase.

Highway Construction - A consortium operated by the Navajo, Hopi and Zuni Indian tribes has been awarded $152,000 in federal job-training funds aimed at helping Indians participate in a four-year, $100 million program for highway improvement and construction in the Four Corners region. U.S. Transportation Secretary Elizabeth Dole said the $152,000 will be used to promote both job-training programs and the development of Indian-owned businesses related to road construction.

Mining - A two-year, $70 million construction program at Inspiration Consolidated Copper Co.'s smelter in Miami will begin this summer with completion scheduled for 1986. Inspiration Consolidated has recently agreed in principle to become a 50 percent partner in the smelter with Amoco Minerals Co. of Englewood, Colorado. Inspiration, based in Phoenix, will retain primary responsibility for operations. The construction program is designed principally to meet Environmental Protection Agency clean-air standards and to increase capacity.

Manufacturing - Liquid Air Corp. has announced plans to build a $14 million air-separation plant in Tucson. The plant, to be completed by 1985, will produce 260 tons of liquid gas a day with capacity to produce more if needed. It will employ 40 persons.

Tucson is currently served by Liquid Air's Phoenix plant which makes 170 tons of gases a day. Since the new plant will be more efficient, the Phoenix plant may be mothballed.

A demonstration plant for researching a method of using clay in the production of aluminum will be built in Tucson by Atlantic Richfield Co. and Aluminum Co. of America. The plant will be used to develop technology for producing aluminum chloride from kaolin clay for use in a smelting process that produces aluminum. The new technology will produce a significant energy savings.

Plans call for construction of a demonstration plant at a cost of more than $10 million in 1986 or 1987. ARCO metals presently has 30 Tucson employees and 15 more permanent research and technical workers will be added.

Retail - Target Stores will hire 1,300 part-time and 200 temporary employees for five stores that it plans to open around the Phoenix area in February. Another 200 management jobs will be created, for a total of 17,000 jobs. Target is the largest division of the Minneapolis-based Dayton Hudson Corp. It operates 205 discount department stores in 22 states.

Apprenticeship Applications - The Arizona Operating Engineers' Apprenticeship and Training System will accept applications for apprenticeships through January. Applicants must be 18 to 30 and have a high school education or its equivalent.

Those interested may call the System's Phoenix office at 252-6138 or the Tucson office at 623-2655.

Legislation Proposed - Arizona employers would get a tax deduction for hiring displaced homemakers under the terms of a bill sponsored by Representative Chris Herstam, R-Phoenix. HB2006 allows an employer to deduct the first three months of salary paid to a displaced homemaker. The bill defines displaced homemaker as someone who was married at least 15 years before a divorce or the death or disability of a spouse. To qualify, those homemakers must not have worked for more than six months at a time during the preceding 10 years. Joann Phalen, director of Arizona Action for Displaced Homemakers, estimates there are more than 100,000 women in the state who fit that description.

Layoff Update - A sharp increase in sales-tax collections is providing Maricopa County with unexpected revenue. According to County Finance Director Ray Smith, the increase and a number of resignations at Maricopa Medical Center mean that further layoffs of county employees may not be necessary to balance the budget by the end of the fiscal year.

Since the October decision by the Board of Supervisors to authorize the layoff of hundreds of employees, only 18 have been laid off, according to county records, while more than 200 hospital employees have resigned.

Closing - Arden-Mayfair Inc. has closed two Food Giant stores in Tucson, affecting about 15 to 20 employees at each store. According to company policy, employees are laid off on a seniority basis and laid-off employees have recall rights for six months. The grocery chain still has nine Tucson stores and has no plans to close any stores outside Tucson.

Closure Update - Yuma's J.M. McDonald store has reopened as Babbitts Department Store. As reported in the November Labor Market Newsletter, some 70 employees had been affected by the fall closure. After the purchase, Babbitts hired approximately 60 persons, most of them previous store employees.

Strike Update - Duval Corp.'s Sierrita Mine is currently operating with a work force of approximately 990, including practically all of about 470 union-represented employees who returned to their jobs without a contract. Although the unions technically are on strike, no negotiation meetings have been scheduled.

A "cross-training" program has been instituted at Duval's Sierrita Mine. By training workers to perform two or more different jobs, Duval hopes to cut costs.

At Duval's closed Mineral Park molybdenum mine at Kingman, tentative agreement has been negotiated on issues of concern. However, according to company spokesmen, a contract settlement will not change the status of the mine which has been closed since December 15, 1981.

Tentative agreement has been reached on the nationwide Greyhound strike. As of December 15, details of the agreement are incomplete but union sources acknowledge the pact contains major concessions, including a 7.8 percent wage cut - the same amount rejected earlier by more than 90 percent of union members - and a commitment by the employees to assume from the company a 4 percent payment into the pension plan. However, the new agreement does restore a seniority roster for work agreements and other benefits the company sought to eliminate and deletes a clause allowing use of part-time workers.

Some 12,700 drivers, baggage handlers, terminal personnel and mechanics will vote on the proposed contract. Ballots are expected to be counted in Phoenix by December 20th.

Phelps Dodge Strike - The talks between Phelps Dodge and negotiators for the striking unions remain in virtual stalemate. Although the company has agreed to reinstate about 80 to 85 percent of the side agreements canceled July 1, no progress has been made on the main union demands - cost-of-living raises and higher wages for new employees. The chief negotiator for Phelps Dodge has said that according to labor law, "We have to continue to negotiate if they make counterproposals, but there is no real progress."

Despite the stalemate, the coalition of unions to which the strikers belong refuses to believe the situation is hopeless. As reported by the Tucson Citizen, labor officials cite the following reasons for continued optimism:

- A U.S. Supreme Court ruling that some union leaders say means Phelps Dodge will have to fire replacement workers. This is contrary to Phelps Dodge's assertion that because of the court opinion, the company has the legal right to permanently replace strikers.
- Lack of experienced workers among the replacements. The company counters that it has recruited qualified workers for craft jobs and that other production tasks can be learned in a relatively short period.
- Replacement workers may quit either because the work is more drudgery than they anticipated or a further drop in the price of copper may cause Phelps Dodge to lay off its replacement workers. In either case, the outcome theoretically would be the willingness of Phelps Dodge to settle the dispute with the unions.
- New employees and non-strikers need what can be won for them through settlement of the strike.
- Phelps Dodge must eventually give in on the cost-of-living issue. In contract negotiations every three years since 1967, copper unions headed by the United Steelworkers of America have reached an agreement with one company and then have been able to induce other copper producers to accept the same pattern in new contracts. However, Phelps Dodge has given no indication that it is willing to continue this practice.

In the meantime, the talks remain in extended recess. According to a Phelps Dodge official, the earliest that talks will resume is January 10th.

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Arizona Labor Market NEWSLETTER

Arizona Department of Economic Security

Vol. VIII No. 2
February 1984

Unemployment Rate

Seasonally Adjusted
December*

ARIZONA	6.5%
Maricopa Co.	5.0%
Pima Co.	6.0%
UNITED STATES	8.2%

Consumer Price Index

National-November
1967 - Base Year

Wage Earner/Clerical Worker - 301.4
% Chg. Yr. Ago 2.8

All Urban - 303.1
% Chg. Yr. Ago 3.2

Phoenix-4th Qtr.
1977 - Base Year

All Urban - 174.1
% Chg. Yr. Ago 4.1

Producer Price Index

National-December*
1967 - Base Year

All Commodities-306.0
% Chg. Yr. Ago 1.8

Finished Goods -287.1
% Chg. Yr. Ago 0.6

* Preliminary

AT&T Breakup and Technological Advances Spell Change for Communication Workers

American Telephone and Telegraph Co. and representatives from three striking unions (Communication Workers of America, International Brotherhood of Electrical Workers, and the Telecommunications International Union) reached agreement late last August on similar three-year contracts, just four months prior to the scheduled breakup of the Bell System. The new contracts featured provisions designed to protect employees from the results of divestiture and accelerating technology in the communications industry.

According to CWA President Glenn E. Watts, the most important aspect of the new agreement was the issue of employment security. Under the new contract, training assumes a prominent role.

Each of the companies in the Bell System (including Mountain Bell, a subsidiary of U S West) will be required to establish a Training Advisory Board, comprised of three management and three union representatives. Major functions of the Board will be:

- Advising the company on training needs and curricula;
- Reviewing training systems (such as community colleges and technical schools) and making recommendations;

- Evaluating the effectiveness of courses and systems; and

- Encouraging employee participation in training courses.

Training Programs

Under the contracts, several different types of training programs are to be established within one year by each entity of the Bell System. A Career Development Program will be established for all employees with at least one year of service. The program will provide training which is:

- Designed to help employees prepare themselves for career progression opportunities or job changes within the company;

- "Generic" as opposed to "job specific," concentrating on technical, sales, clerical and other fundamental skills; and

- Voluntary, unpaid and to be conducted outside of working hours.

In addition, Mountain Bell will continue to offer tuition aid to regular employees. The 100 percent reimbursement is available for any approved credit or non-credit course, even if the employee is not pursuing a formal degree. If the employee is enrolled in a formal program, the company will reimburse tuition for elective, as well as required, courses.

Accomplishments within these programs will be taken into account by the company when the employee is considered for promotion or transfer.

A new Job Displacement Training Program will also be initiated by each company in the Bell System. This program will serve to:

- Inform employees of possible job terminations as soon as possible and offer them any pertinent training required for anticipated job openings within the company;

- Aid those employees whose jobs are being reclassified to lower pay grades or terminated by enhancing their ability to qualify for anticipated job openings within the company; and

- Provide unpaid training for employees, to be conducted outside of scheduled working hours.

This program will be available to all regular employees regardless of length of service.

One of the results of accelerating technology in the communications industry has been increasing mechanization. This has led to greater and greater centralization. In Arizona, many Mountain Bell employees working in the non-metropolitan counties are being relocated to new areas or new departments within the metropolitan areas (Phoenix, Tucson and Flagstaff) as the Bell System becomes more mechanized. Eventually, all testing operations for the state are expected to be located in Phoenix. Most service representatives are already concentrated in the Phoenix and Tucson areas.

Help for "Surplus" Employees

The trend toward centralization, together with the scheduled breakup, has caused Bell System officials to label some positions as "surplus" and programs have been established to help such employees deal with job separation and job-search activities. At Mountain Bell, the Human Resources Department is currently offering a Self-Assessment Workshop for surplus employees, concentrating on interviewing and job-search training. To assist them in their job searches, employees will be allowed to use company resources (such as word processing capabilities and office space for making job contacts) for up to three months following separation.

Mountain Bell is also offering financial incentives to employees who are affected by technological change or the breakup of AT&T. The Supplemental Income Protection Plan (SIPP) provides benefits to employees under the company's normal retirement age who decide to leave the company. Eligibility is limited to those employees who have at least 20 years of service and whose age plus years of service totals 75. Both monthly and lump sum payments are made to qualifying employees. Maximum payments are limited to a combined $22,200.

Employees who do not qualify for the SIPP but elect to leave the company because their jobs are threatened are eligible for the Voluntary Income Protection Plan (VIPP). To qualify for VIPP, the employee must have at least two years of service. Monthly and lump sum payments which could be used for relocation, training, or other purposes are paid to qualifying employees.

The Reassignment Pay Protection Plan was devised for employees who are downgraded because of technological change. Qualifying employees will retain their pay for three years, followed by a four-stage reduction to lower pay over a thirteen week period.

Although Mountain Bell expects to recruit for some of the high demand occupations, it will continue to consider internal personnel for most job opportunities before going to outside applicants. According to Jan Ripley, Human Resource Manager for the Phoenix office, the new training programs were designed to "improve the company's competitive edge and improve employment security." Like the other local companies, Mountain Bell will rely increasingly on education and training programs to help meet changing labor force conditions.

Guy R. Wilson

TUCSON JOB GROWTH SIXTH BEST IN NATION

A national survey by Chase Econometrics has again said Tucson is expected to be one of the 10 fastest-growing job centers in the nation during the next decade. The study surveyed 112 metropolitan areas and ranked them on the prospects for job growth. Austin, Texas heads the list of the top ten metropolitan areas for future employment growth.

In descending order, the other nine are: Oxnard, California; San Diego, California; Anaheim, California; Orlando, Florida; Tucson, Arizona; Riverside, California; Tampa, Florida; Las Vegas, Nevada; and San Antonio, Texas. The projected growth rates for the 10 cities range from 4.2 percent in Austin to 3.2 percent for San Antonio. The average growth rate for the 112 cities is expected to be 1.8 percent a year during the decade.

Tucson is expected to grow 3.4 percent a year. In 1981, when Tucson was ranked third, the growth rate was projected at 4.3 percent. In 1980, Tucson was ranked as the nation's fastest-growing city and the growth rate was expected to be 4.4 percent during the 1980s. Tucson's decline in projected growth was due to a housing and construction slump (which has not affected Austin as severely) as well as to declines in copper and aerospace employment.

Phoenix, ranked 14th with an anticipated growth rate of 3 percent, was seventh in the 1981 survey with a 3.7 percent projected growth rate.

ARIZONA UNEMPLOYMENT INSURANCE ACTIVITIES - NOVEMBER

	November 1983	October 1983	November 1982	% Change From One Year Ago
Arizona Claimants Served**	32,963	35,749	71,760	-54.1%
Arizona Average Weeks Unemployed***	9.9	9.3	10.2	- 2.9%
Arizona Benefits Paid**	$ 10,677,360	$ 10,249,204	$ 22,413,423	-52.4%
Arizona Trust Fund Balance	$173,108,109	$168,505,487	$220,292,918	-21.4%

*Estimated **All Programs ***UI Only

BLACKS IN THE ARIZONA LABOR FORCE

According to data from the Equal Employment Opportunity Special File, prepared by the U. S. Bureau of the Census, non-hispanic blacks comprised approximately 2.4 percent of the 1980 civilian labor force in Arizona. By comparing percentages of blacks within specific occupations to the percentage of blacks in the labor force as a whole, it can be determined if disparities exist.

In 1980, blacks were not represented at levels equal to their labor force participation rate in these occupations: accountants (1.1 percent), librarians (1.6 percent), postsecondary teachers (1.6 percent), secondary teachers (1.7 percent), receptionists (1.2 percent), secretaries (1.2 percent), bakers (1.8 percent) mechanics and repairers (1.8 percent), butchers/meat cutters (1.8 percent) and insurance sales occupations 0.7 percent).

Blacks were more highly represented in the labor force within private household occupations (9.4 percent), social and recreational workers (6.3 percent), file clerks (3.9 percent), payroll and timekeeping clerks (4.3 percent), stenographers (5.7 percent), telephone operators (5.0 percent), typists (6.5 percent), bus drivers (4.8 percent) and taxicab drivers/chauffers (3.9 percent).

When the 1980 percentages are compared to those for 1970, certain trends emerge. Although the total number of blacks in professional occupations remained small, definite increases occurred over those ten years, especially for women. The percentage of accountants who are black increased 175 percent from 1970 to 1980. Other increases occurred for engineers (150 percent), lawyers and judges (250 percent) and postsecondary teachers (220 percent).

There was a trend away from blue-collar jobs toward white-collar jobs. Decreases occurred in private household occupations (51 percent), laundry/dry cleaning operatives (20 percent), construction laborers (54 percent) and farm workers and supervisors (38 percent). Increases occurred for file clerks (160 percent), stenographers (850 percent), telephone operators (100 percent) and typists (491 percent).

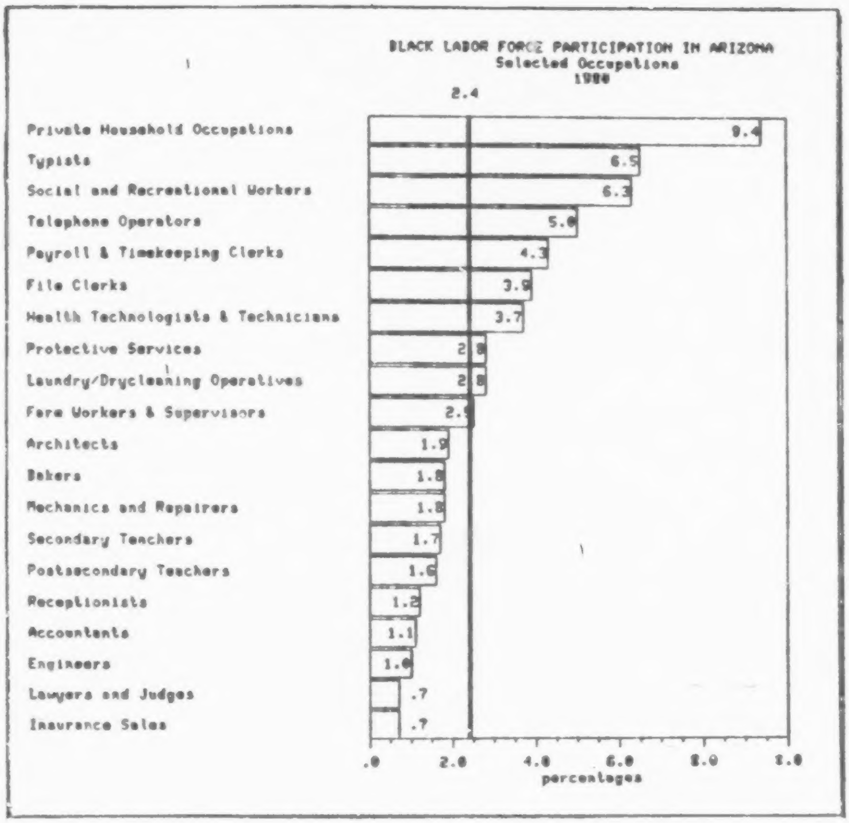
Arizona's trends were similar to the national trends for black employment - decreases in private household occupations, laborers, and farm workers; increases in professional and clerical occupations. However, the shifts on both the national and state levels were much greater for women than for men. The table accompanying this article contains the percentages of black participation within selected occupations for both 1970 and 1980. The bar chart compares the participation rates in various occupations in 1980 with the black participation rate in the entire 1980 civilian labor force.

Barbara Keene

BLACK LABOR FORCE PARTICIPATION IN ARIZONA
1970 AND 1980
(Selected Occupations)

	1970		1980	
Occupations	Males	Females	Males	Females
MANAGERIAL AND PROFESSIONAL:				
Accountants	0.3%	0.1%	0.5%	0.6%
Architects	0.9	NA*	1.6	0.3
Engineers	0.4	NA	0.8	0.2
Lawyers and Judges	0.2	NA	0.5	0.2
Librarians	NA	1.4	NA	1.6
Postsecondary Teachers	0.1	0.4	0.9	0.7
Secondary Teachers	0.3	0.8	0.7	1.0
Social and Recreational Workers	2.6	2.4	3.1	3.2
TECHNICAL, SALES, AND ADMIN. SUPPORT:				
File Clerks	NA	1.5	0.2	3.7
Health Technologists & Technicians	1.3	2.4	1.1	2.6
Insurance Sales	0.9	0.2	0.5	0.2
Payroll and Timekeeping Clerks	NA	NA	0.9	3.4
Receptionists	NA	1.1	0.2	1.0
Secretaries	NA	0.9	NA	1.2
Stenographers	NA	0.6	NA	5.7
Telephone Operators	NA	2.5	1.0	4.0
Typists	NA	1.1	0.8	5.7
SERVICE OCCUPATIONS:				
Private Household Occupations	0.5	18.8	0.1	9.3
Protective Services	1.6	NA	2.3	0.5
FARMING, FORESTRY, AND FISHING:				
Farm Workers and Supervisors	3.6	0.4	2.3	0.2
PRECISION PRODUCTION, CRAFT & REPAIR:				
Bakers	NA	NA	1.3	0.5
Mechanics and Repairers	1.6	NA	1.7	0.1
OPERATORS, FABRICATORS, AND LABORERS:				
Laundry/Drycleaning Operatives	1.8	1.7	0.8	2.0

*NA = Not Available



NEW LMI PUBLICATIONS

Annual Planning Information - A Guide for JTPA Planners will be available in March. The API contains economic analyses of the state and of the Service Delivery Areas designated within Arizona to deliver employment and training programs under the Job Training Partnership Act. The economic analyses contain information on population and labor force characteristics, unemployment, target populations and occupational supply as well as two-year economic forecasts for the state and for each SDA.

An update of the Affirmative Action Planning Information publication is now available. Separate reports from the 1980 dicentennial census have been prepared for the following areas: Arizona; the counties Of Apache, Cochise, Coconino, Gila, Graham, Greenlee, Maricopa, Mohave, Navajo, Pima, Pinal, Santa Cruz, Yavapai and Yuma; and the cities of Glendale, Mesa, Phoenix, Scottsdale, Tempe and Tucson.

Each report contains information on population, civilian labor force, employment, unemployment and occupations by sex and minority status. Other material that may be useful in structuring an affirmative action program is also provided.

One copy of each of the above LMI publications may be obtained by writing: Labor Market Information Publications - 733A, P. O. Box 6123, Phoenix, Arizona 85005. Multiple copies may be purchased for the cost of printing.

THE ARIZONA LABOR FORCE IN DECEMBER 1983

Arizona's economic recovery has continued to accelerate throughout 1983. In fact, the year ended in much better shape than nearly every analyst had expected. Improvement in the unemployment rate was slow during the first six months, but from July through December, it has fallen from 9.7 to 6.5 percent. In addition to setting a number of record industry employment levels, this month also established the largest annual decline in the unemployment rate ever recorded.

The continuing pattern of strong growth in the metropolitan areas helped set a record for the total number of jobs as well as record employment levels in manufacturing, trade, services and government. Unfortunately, the prosperity being enjoyed in the Phoenix and Tucson areas has not yet moved into the rural parts of the state. Except for winter tourism activity in Yuma County and winter produce business around Nogales, little change was recorded in the nonmetropolitan counties.

The first year of Arizona's economic recovery was led by the interest sensitive sectors, particularly construction and the associated lumber and aggregates sectors of manufacturing. Again, most of this activity was recorded in the Phoenix and Tucson areas. But as this month's statistics indicate, construction growth has slowed substantially. Only 100 new jobs were added in December, the slowest growth since the beginning of the year. The outlook into 1984 is for growth to continue, but at a slower rate than in 1983, as the focus of activity moves from residential construction to commercial and other heavy construction. Given the number of housing units already built or under construction, it seems doubtful that this pace of housing growth can continue. But as the economy continues to gain strength, existing business will need room for expansion and new business will need space to operate.

This leads into the second phase of the recovery, where we are currently positioned. Strong consumer confidence and increased purchases have reduced inventories to low levels following Christmas. These growing purchases and declining inventories will cause manufacturers to expand production and increase their staffs. We are already seeing the impact of a more aggressive consumer in both the trade and services areas. In the last month alone, trade added 6,000 new workers while services added another 1,800. And in the last three months, a total of 23,700 people have found work in trade and services types of businesses. Even manufacturing, which reacts more slowly to these changes, has added 1,500 new staff in the last three months. If the recovery follows a traditional path, we can expect manufacturing to continue to gain strength into 1984.

While our current economic recovery cannot be characterized as a boom, this is the strongest economic growth we have seen during the 1980s. Except for mining and government, every sector is growing and appears ready for continued growth in 1984. In mining, employment levels have been virtually unchanged since last year. But unfortunately, the national recovery has not caused the demand for copper, nor its price, to increase. Some small employment losses will be recorded in January, with additional losses likely later in the year. Each month, the economic outlook for copper mining remains dark and unchanged.

Meanwhile, tight budgets have kept government from growing as quickly as it would have otherwise. In the last twelve months, the educational sector has added 5,100 new workers, federal government 1,000 new workers, and the remainder of government has dropped 500 staff. With pressure from both the national and local levels to cut government expense, it seems unlikely that this trend will change.

As we will elaborate on more next month, Arizona's economic health is good and will continue to improve in 1984.

Arizona Labor Force and Employment

December 1983 (in thousands)

	ARIZONA				
				-- Amt Change --	
	Dec.* 1983	Nov. 1983	Dec. 1982	Nov. to Dec.	1982 to 1983
TOTAL CIVILIAN LABOR FORCE	1399.7	1394.0	1350.1	+5.7	+49.6
Total Unemployment	88.0	98.2	141.5	-10.2	-53.5
Rate	6.3	7.0	10.5	---	---
Rate (Sea. Adj.)**	6.5	7.1	10.9	---	---
Total Employment	1311.7	1295.8	1208.6	+15.9	+103.1

THE ABOVE LABOR FORCE STATISTICS SHOULD NOT BE U

NONAGRICULTURAL WAGE AND SALARY EMPLOYMENT BY PLACE OF WORK

	Dec.* 1983	Nov. 1983	Dec. 1982	Nov. to Dec.	1982 to 1983
TOTAL WAGE AND SALARY	1088.0	1078.6	1043.5	+9.4	+44.5
Manufacturing	157.6	157.0	148.9	+0.6	+8.7
Durable Goods	123.0	122.3	114.5	+0.7	+8.5
Stone, Clay and Glass	6.0	5.9	4.9	+0.1	+1.1
Primary and Fabricated Metals	13.6	13.7	14.2	-0.1	-0.6
Primary Metals	6.1	6.0	6.5	+0.1	-0.4
Fabricated Metals	7.5	7.7	7.7	-0.2	-0.2
Machinery	62.7	62.4	60.1	+0.3	+2.6
Other Durable Goods	40.7	40.3	35.3	+0.4	+5.4
Aircraft and Missiles	18.3	18.3	16.7	+0.0	+1.6
Lumber and Wood Products (Except Furniture)	6.2	6.2	4.8	+0.0	+1.4
All Other Durable Goods	16.2	15.8	13.8	+0.4	+2.4
Nondurable Goods	34.6	34.7	34.4	-0.1	+0.2
Food and Kindred Products	7.9	7.9	8.8	+0.0	-0.9
Apparel	5.0	5.0	4.9	+0.0	+0.1
Printing and Publishing	12.2	12.3	11.6	-0.1	+0.6
All Other Nondurable Goods	9.5	9.5	9.1	+0.0	+0.4
Mining and Quarrying	15.6	15.6	15.8	+0.0	-0.2
Copper Mining	12.6	12.6	12.8	+0.0	-0.2
Other Mining and Quarrying	3.0	3.0	3.0	+0.0	+0.0
Construction	76.9	76.8	65.2	+0.1	+11.7
Trans., Communications, and Public Utilities	57.1	56.5	56.4	+0.6	+0.7
Transportation	24.4	23.9	23.7	+0.5	+0.7
Communications and Public Utilities	32.7	32.6	32.7	+0.1	+0.0
Trade	268.9	262.9	264.5	+6.0	+4.4
Wholesale Trade	53.2	52.5	51.9	+0.7	+1.3
Retail Trade	215.7	210.4	212.6	+5.3	+3.1
General Merchandise and Apparel	42.0	39.1	42.4	+2.9	-0.4
Food Stores	33.6	33.2	34.0	+0.4	-0.4
Automotive and Service Stations	24.4	24.2	24.2	+0.2	+0.2
Eating and Drinking Places	72.4	71.5	69.8	+0.9	+2.6
Other Retail Trade	43.3	42.4	42.2	+0.9	+1.1
Finance, Insurance, and Real Estate	63.7	63.5	61.9	+0.2	+1.8
Services and Miscellaneous	234.1	232.3	222.7	+1.8	+11.4
Hotels and Other Lodging Places	24.2	24.0	23.3	+0.2	+0.9
Business Services	44.3	43.9	40.3	+0.4	+4.0
Health Services	63.7	63.4	61.6	+0.3	+2.1
Other Services	101.9	101.0	97.5	+0.9	+4.4
Government	214.1	214.0	208.1	+0.1	+6.0
Federal	39.1	39.0	38.2	+0.1	+0.9
State and Local	175.0	175.0	169.9	+0.0	+5.1
School	110.6	109.5	105.0	+1.1	+5.6

* Preliminary

** Normal seasonal variations have been eliminated to reflect underlying economic trends.

NOTE--Data has been adjusted to the 1972 Standard Industrial Classifications (SIC).

December 1983 (in thousands)

MARICOPA COUNTY Dec.* 1983	MARICOPA COUNTY Nov. 1983	MARICOPA COUNTY Dec. 1982	MARICOPA COUNTY -- Amt Change -- Nov. to Dec.	MARICOPA COUNTY -- Amt Change -- 1982 to 1983	PIMA COUNTY Dec.* 1983	PIMA COUNTY Nov. 1983	PIMA COUNTY Dec. 1982	PIMA COUNTY -- Amt Change -- Nov. to Dec.	PIMA COUNTY -- Amt Change -- 1982 to 1983
866.8	860.6	824.7	+6.2	+42.1	262.3	261.0	252.4	+1.3	+9.9
42.7	48.1	69.8	-5.4	-27.1	15.4	17.9	26.1	-2.5	-10.7
4.9	5.6	8.5	---	---	5.9	6.9	10.3	---	---
5.0	5.7	8.7	---	---	6.0	6.9	10..	---	---
824.1	812.5	754.9	+11.6	+69.2	246.9	243.1	226.3	+3.8	+20.6

ED FOR ECONOMIC ASSISTANCE PROGRAMS.

NONAGRICULTURAL WAGE AND SALARY EMPLOYMENT BY PLACE OF WORK

MARICOPA COUNTY Dec.* 1983	MARICOPA COUNTY Nov. 1983	MARICOPA COUNTY Dec. 1982	MARICOPA COUNTY Nov. to Dec.	MARICOPA COUNTY 1982 to 1983	PIMA COUNTY Dec.* 1983	PIMA COUNTY Nov. 1983	PIMA COUNTY Dec. 1982	PIMA COUNTY Nov. to Dec.	PIMA COUNTY 1982 to 1983
697.7	690.5	664.8	+7.2	+32.9	203.7	201.0	194.7	+2.7	+9.0
113.5	112.9	107.3	+0.6	+6.2	27.2	26.9	25.7	+0.3	+1.5
89.8	89.4	84.3	+0.4	+5.5	22.3	22.0	20.9	+0.3	+1.4
3.7	3.7	3.0	+0.0	+0.7					
8.7	8.9	9.4	-0.2	-0.7					
49.8	49.6	47.4	+0.2	+2.4					
27.6	27.2	24.5	+0.4	+3.1					
23.7	23.5	23.0	+0.2	+0.7	4.9	4.9	4.8	+0.0	+0.1
5.2	5.1	6.0	+0.1	-0.8					
2.6	2.5	2.2	+0.1	+0.4					
9.0	9.0	8.5	+0.0	+0.5					
6.9	5.9	6.3	+0.0	+0.6					
0.6	0.6	0.5	+0.0	+0.1	3.5	3.4	3.8	+0.1	-0.3
52.4	52.3	44.1	+0.1	+8.3	15.5	15.3	12.4	+0.2	+3.1
36.5	36.0	35.7	+0.5	+0.8	8.9	8.9	8.9	+0.0	+0.0
16.0	15.6	15.3	+0.4	+0.7	4.1	4.0	3.9	+0.1	+0.2
20.5	20.4	20.4	+0.1	+0.1	4.8	4.9	5.0	-0.1	-0.2
180.5	175.9	177.1	+4.6	+3.4	44.9	43.9	44.5	+1.0	+0.4
41.8	41.5	40.9	+0.3	+0.9	6.3	6.2	5.9	+0.1	+0.4
138.7	134.4	136.2	+4.3	+2.5	38.6	37.7	38.6	+0.9	+0.0
27.4	25.2	27.1	+2.2	+0.3	7.5	7.0	7.9	+0.5	-0.4
21.8	21.4	22.0	+0.4	-0.2	5.3	5.3	5.5	+0.0	-0.2
14.8	14.7	14.6	+0.1	+0.2	4.3	4.2	4.3	+0.1	+0.0
44.8	44.0	43.6	+0.8	+1.2	13.5	13.3	13.1	+0.2	+0.4
29.9	29.1	28.9	+0.8	+1.0	8.0	7.9	7.8	+0.1	+0.2
49.1	49.0	48.0	+0.1	+1.1	9.5	9.5	8.8	+0.0	+0.7
157.2	155.4	147.9	+1.8	+9.3	45.8	45.7	43.6	+0.1	+2.2
14.9	14.5	14.3	+0.4	+0.6	3.7	3.7	3.3	+0.0	+0.4
36.2	35.8	32.7	+0.4	+3.5	6.5	6.5	6.0	+0.0	+0.5
42.5	42.1	40.7	+0.4	+1.8	13.6	13.6	13.5	+0.0	+0.1
63.5	53.0	60.2	+0.6	+3.4	22.0	21.9	20.8	+0.1	+1.2
107.9	108.4	104.2	-0.5	+3.7	48.4	47.4	47.0	-1.0	+1.4

-- Prepared by Labor Market Information, Research and Analysis (CPS-MOD, 1/83)

NONMETROPOLITAN COUNTIES LABOR FORCE AND EMPLOYMENT

December 1983 (Preliminary)

	Apache	Cochise	Coconino	Gila	Graham	Greenlee	La Paz
TOTAL CIVILIAN LABOR FORCE*.	14,925	29,750	35,925	14,625	8,125	3,825	5,225
Total Unemployment	2,000	2,625	3,200	2,625	925	250	650
Rate	13.4%	8.8%	8.9%	17.9%	11.4%	6.5%	12.4%
Rate (Seas. Adj.)**.	13.4%	8.9%	8.8%	18.0%	12.2%	6.2%	-INA-
Total Employment	12,925	27,125	32,725	12,000	7,200	3,575	4,575

THE ABOVE LABOR FORCE STATISTICS SHOULD NOT BE USED
FOR ECONOMIC ASSISTANCE PROGRAMS

	Apache	Cochise	Coconino	Gila	Graham	Greenlee	La Paz
TOTAL WAGE AND SALARY. . . .	12,975	21,575	29,975	9,375	4,375	3,025	2,550
Manufacturing.	550	1,500	2,450	1,175	100	350	125
Mining and Quarrying	25	400	50	1,525	75	1,625	0
Construction	1,450	700	1,050	1,325	175	25	100
Trans., Comm., & Pub. Util..	1,650	1,400	2,175	325	175	50	50
Trade.	1,025	4,200	7,300	1,750	1,325	300	900
Fin., Insur., & Real Estate.	125	525	725	225	125	25	125
Services and Miscellaneous .	3,025	2,700	6,325	1,450	625	75	625
Government	5,125	10,150	9,900	2,600	1,775	575	625

	Mohave	Navajo	Pinal	Santa Cruz	Yavapai	Yuma
TOTAL CIVILIAN LABOR FORCE*.	22,650	24,100	32,800	9,000	32,575	37,050
Total Unemployment	2,600	2,650	4,150	1,625	2,275	4,275
Rate	11.5%	11.0%	12.7%	18.1%	7.0%	11.5%
Rate (Seas. Adj.)**. . . .	11.4%	10.8%	13.2%	19.0%	6.7%	-INA-
Total Employment	20,050	21,450	28,650	7,375	30,300	32,775

THE ABOVE LABOR FORCE STATISTICS SHOULD NOT BE USED
FOR ECONOMIC ASSISTANCE PROGRAMS

	Mohave	Navajo	Pinal	Santa Cruz	Yavapai	Yuma
TOTAL WAGE AND SALARY. . . .	14,950	16,325	23,650	7,150	17,750	22,925
Manufacturing.	2,150	1,625	2,575	775	1,900	1,650
Mining and Quarrying	275	1,075	5,325	25	1,025	75
Construction	950	575	675	175	1,075	1,700
Trans., Comm., & Pub. Util..	925	1,600	975	525	875	975
Trade.	4,425	3,400	3,675	3,125	4,600	7,550
Fin., Insur., & Real Estate.	600	300	575	250	725	650
Services and Miscellaneous .	2,675	3,625	1,850	900	3,325	3,925
Government	2,950	4,125	8,000	1,375	4,225	6,400

*Adjusted to the Current Population Survey (CPS) to reflect place of residence.
**Seasonal adjustment not applicable for economic assistance programs.

NOTE--Series for Yuma and La Paz counties start January 1983. Data are not comparable to any past series.

ARIZONA LABOR FORCE AND EMPLOYMENT FOR ECONOMIC ASSISTANCE PROGRAMS
November 1983 (Preliminary)

County	Civilian Labor Force	Employment	Unemployment	Rate
Statewide	1,392,828	1,294,308	98,520	7.1%
Apache	14,921	12,804	2,117	14.2
Cochise	29,790	27,040	2,750	9.2
Coconino	36,440	33,355	3,085	8.5
Gila	14,678	12,021	2,657	18.1
Graham	8,307	7,182	1,125	13.5
Greenlee	3,845	3,582	263	6.8
La Paz	5,304	4,558	745	14.0
Maricopa	860,026	811,848	48,178	5.6
Mohave	22,560	19,755	2,805	12.4
Navajo	24,163	21,415	2,748	11.4
Pima	260,675	242,735	17,940	6.9
Pinal	33,064	28,579	4,485	13.6
Santa Cruz	9,372	7,077	2,295	24.5
Yavapai	32,768	30,370	2,398	7.3
Yuma	36,915	31,986	4,929	13.4

Data have been adjusted to the 1972 Standard Industrial Classification (SIC). These figures are the only official BLS labor statistics to be used for revenue sharing purposes. They are not designed to be used as economic indicators. Note: Series for Yuma and La Paz counties start January 1983. Data are not comparable to any past series.

ESTIMATED HOURS AND EARNINGS OF PRODUCTION WORKERS IN SELECTED INDUSTRIES IN ARIZONA

INDUSTRY	AVERAGE WEEKLY EARNINGS			AVERAGE WEEKLY HOURS			AVG. HOURLY EARNINGS		
	DEC.* 1983	NOV. 1983	DEC. 1982	DEC.* 1983	NOV. 1983	DEC. 1982	DEC.* 1983	NOV. 1983	DEC. 1982
FOR THE STATE OF ARIZONA*									
Manufacturing	385.62	378.40	357.00	42.1	41.4	40.8	9.14	9.14	8.75
Aircraft & Missiles	566.40	518.25	512.11	47.2	44.6	45.4	12.00	11.62	11.28
Food & Kindred Products	325.51	327.05	313.23	41.1	41.5	39.7	7.92	7.90	7.89
Primary Metals	505.60	474.77	459.80	40.0	39.4	38.9	12.64	12.05	11.82
Machinery	347.66	346.88	334.55	41.2	41.1	40.7	8.42	8.44	8.22
Copper Mining	572.90	521.43	531.45	42.5	39.0	40.6	13.48	13.37	13.09
Construction	439.24	431.06	443.79	37.8	36.5	33.8	11.62	11.81	13.13
Utilities	544.32	544.32	501.95	44.8	44.8	43.8	12.15	12.15	11.46
Retail Trade**	207.26	211.15	209.55	32.6	33.2	35.1	6.35	6.36	5.97
Wholesale Trade	343.07	351.34	323.98	40.6	39.7	38.8	8.45	8.85	8.35

* Preliminary
** Excludes eating and drinking places.
NOTE--These estimates are based on a sample of full and part-time production and related employees whose payroll and hours are reported for the pay period which includes the 12th of the month. All data has been adjusted to the 1972 Standard Industrial Classifications (SIC).

--Prepared by Labor Market Information, Research and Analysis (1972 SIC, 1/83)

RECESSIONS AND THE ARIZONA ECONOMY: A COMPARISON OF 1974-75 AND 1981-82

Statistics recently released by the Bureau of Economic Analysis, U. S. Department of Commerce, reveal the impact of the 1981-82 recession on the Arizona economy. The state suffered a significant reduction in the growth of Personal Income (PI) and per capita PI, lagging behind the national averages in both. The hardest hit areas were mining, construction and the primary metals industry. However, PI growth was strong in the high tech and defense related industry, finance, insurance and real estate, and state and local government. The reduction in the growth rate of per capita PI is attributable not only to the recession but also to the continued rapid growth of Arizona's population. Table 1 clearly illustrates these effects.

To better understand the effects of the recent recession on Arizona, it is useful to compare it to the 1974-75 recession. The overall picture is very similar for both periods. Both were characterized by slowly rising unemployment in the first year that did not peak until the middle of the following year. The 1974-75 recession also had similar growth rates in population (2.8 percent), total PI (6.1 percent) and per capita PI (3.3 percent). However, the effects of the two recessions on various sectors of Arizona's economy were somewhat different.

As Table 2 illustrates, the 1974-75 recession impacted heavily on the durable goods sector, reducing PI by 1.8 percent and employment by 14.1 percent. Especially hard hit was the machine industry which suffered a 10.6 percent decline in PI with over one-fifth of the workforce losing their jobs. By comparison, in the 1981-82 recession, employment fell in the machinery sector by 1.6 percent while PI managed to rise by 8.7 percent, both outperforming the durable goods sector as a whole. Looking at primary metals, the inverse case exists. In 1974-75, although employment fell by 12.3 percent, PI increased by a very strong 24.9 percent. However, in the later recession, both employment and PI fell by a significant amount, 20.8 percent and 19.4 pencent respectively. Mining had a similar experience. During 1974-75, employment fell by 8.6 percent while PI showed a slight reduction of 0.6 percent. In 1981-82, however, employment fell 26.8 percent and PI 24.8 percent, both the highest in the state.

During the 1981-82 recession, the best performing private sector industry was finance, insurance and real estate. This industry registered a modest 1.6 percent growth in employment and a very strong 9.8 percent increase in PI. This is contrasted with the industry's slight reduction in employment of 0.7 percent and increase in PI of 2.3 percent between 1974 and 1975. The strong showing of this industry during the last recession is partially due to the continued rapid population growth of the state, especially Maricopa and Pima Counties, which results in an increased demand for the services which this industry provides. Further growth can be attributed to the deregulation that took place during this period.

It appears that the experiences of construction, non-durable goods, retail trade and state and local government were very similiar during both recessions. All but construction showed an increase in PI in both periods and only non-durable goods and construction suffered a reduction in employment. The recession in Arizona's construction industry really began in 1979. Between that year and 1982, employment fell 30.7 percent while during the "official" 1981-82 recession, employment fell 15.6 percent. In the 1974-75 recession, employment in construction was reduced by 24.9 percent. Personal Income fell much more in 1974-75 than in 1981-82, by 19.9 percent in the former period and 8.3 percent in the latter. Finally, it should be noted that the increase in employment in state and local government was entirely in the field of education during both recessions.

The preceding analysis illustrates the importance of looking at the effects of recession on a smaller level of aggregation. As in the national economy, not all parts of the state's economy will be similarly affected. The 1974-75 recession clearly impacted more heavily on construction and durable manufacturing in the state while mining was relatively less affected. However, in 1981-82, the high tech industry continued its growth not only in Arizona but throughout the U.S. Meanwhile, mining, namely copper, suffered under the weight of a severe worldwide recession. Clearly, as the industry-mix within the state changes so will the impact of the business cycle.

David Sinclair

TABLE 1. Annual Growth Rates of Personal Income, Per Capita Personal Income and Population in Arizona and the U.S., 1979-1982.

	Personal Income	Per Capita Personal Income	Population
ARIZONA			
1979-80	12.4%	10.3%	3.5%
1980-81	14.2	11.8	2.2
1981-82	5.6	3.1	2.5
UNITED STATES			
1979-80	11.0	9.8	1.2
1980-81	12.4	11.4	1.0
1981-82	6.0	5.0	1.0

TABLE 2. Annual Growth Rates of Personal Income and Employment by Industry in Arizona, 1974-75 and 1981-82.

	Personal Income		Employment	
	1974-75	1981-82	1974-75	1981-82
Mining	-0.6%	-24.8%	-8.6%	-26.8%
Construction	-19.9	-8.3	-24.9	-15.6
Non-Durable Goods	4.8	3.1	-3.7	-3.3
Durable Goods	-1.8	2.5	-14.1	-4.7
Machinary	-10.6	8.7	-21.0	-1.6
Primary Metals	24.9	-19.4	-12.3	-20.8
Retail Trade	3.8	6.0	1.2	0.8
Fin., Ins., Real Estate	2.3	9.8	-0.7	1.6
State & Local Government	12.5	13.0	6.4	0.6
Education	----	----	6.6	1.8

NEW DEVELOPMENTS

Construction - A 36.7 acre site at the main entrance to Tucson International Airport has been purchased for $5.6 million by Bay Colony Development Co. of Phoenix and Tucson. The land will be the site for the $25 million, 500,000 square-foot Bay Colony Technology Center, an industrial development to accommodate high technology companies.

Bay Colony Development Co. is a subsidiary of Bay Financial Corp., Boston. The company opened its first regional office in Phoenix in June.

Construction began in January on a $5.15 million project by Quality Inns International. Scheduled for completion by October, the new Paradise Valley hotel will employ about 200 workers with some 60 additional staff needed within 18 months after opening.

Grand Canyon College officials hope to begin construction late this month on a 9,000 square-foot arts complex. The $350,000 complex is part of a major expansion program for the Phoenix college. Funds will be raised through donations.

Manufacturing - Hughes Aircraft Co. will increase employment at its Tucson missile plant by 10 percent in 1984 and 10 percent in 1985, raising the work force to more than 7,200. Most of the growth expected in the next two years will be in production workers, especially those with trades and skills. Increased production of all missiles made by Hughes will account for the 1,200 new jobs.

Hughes, the largest private-sector employer in the Tucson area, currently employs about 6,000, a record employment that is up from 5,375 at the beginning of 1983.

The Gott Corp., makers of ice chests, water coolers and other plastic containers, has opened a distribution center and small manufacturing plant in Phoenix. The number of people hired to staff the new facility has not been announced but it was not expected to be large.

Sperry Corp. has purchased ARC Avionics from Cessna Aircraft Co.'s electronics division and will move the New Jersey plant to Phoenix later this year. Only about 25 key technical people, primarily engineers, will be transferred. About 250 production employees will be needed in Phoenix when the move is made.

According to a spokesman for Sperry, the most important portion of the sale is the electronic firm's aircraft radios. With the acquisition, Sperry is "trying to be a complete supplier" to the aviation industry.

Ponderosa Paper Products may be able to reopen its Flagstaff plant following a recent Superior Court ruling in favor of Ponderosa, which had asked that it not be bound by a 1972 court injunction barring the discharge of effluent into the Rio de Flag.

Ponderosa, which manufactured paper products from recycled paper, closed in July following disputes over odor problems. The plant had laid off about 180 employees during the past year.

Wholesale Trade - Construction has begun on one of the largest food distribution and storage centers in Phoenix. The $12 million facility will contain 100,000 square feet of freezer and temperature control space as well as office space for food brokers.

Retail Trade - Chrysler Corp. opened its first sales zone in Phoenix on February 1st in an attempt to aggressively market in a five-state area. The new sales zone is designed to help the 91 Chrysler-Plymouth and Dodge dealers in Arizona, Nevada, Utah, New Mexico and El Paso County in Texas with marketing, sales, service and distribution.

The Phoenix zone is the third organized by Chrysler in the past year. The others are in Houston and New Orleans. The Phoenix zone headquarters will have a staff of 37 sales, service and administrative personnel.

Tribal Agriculture - First Interstate Bank of Arizona has agreed to loan $37.5 million to the Navajo Tribe to benefit farming operations on tribal land in northeastern Arizona. The loan is one of the largest ever made by First Interstate and will help the tribe to produce more crops and to provide more jobs for Navajos.

The loan will let the tribe regain control of its agricultural operations from outside consultants and could lead to similar financial arrangements for other tribal enterprises, such as tourism or mining, according to Tribal Chariman Peterson Zah.

Hospitals - The new Thunderbird Samaritan Hospital opened December 17th in Glendale. Building activity around the hospital includes a psychiatric facility, four medical complexes and an expansion of an existing medical facility, two nursing homes and a neighborhood shopping center. City officials estimate that more than 2,000 jobs will be created in a one-mile area around the hospital.

Transportation - Yellow Freight Systems Inc. will move its regional trucking operations and about 200 jobs from Phoenix to Barstow, California. The Phoenix center currently handles cargo from throughout the country for redistribution to several Western states. The move would make the Phoenix operation a local service, although some trucking from the center still would be done to Tucson and Nogales.

The estimated 200 Phoenix employees who will be affected by the move will be offered jobs elsewhere, with most asked to move to Barstow.

Acquisitions - The Phoenix based Circle K Corp. has purchased 960 U-Totem Inc. outlets as the first step in establishing a nationwide chain of convenience stores. The $225 million transaction increases Circle K outlets to 2,180 in 17 Western, Southern and Southeastern states.

McDonnel Douglas Corp. has reached agreement to acquire Hughes Helicopters Inc. for $470 million. The military helicopter producer is based in Culver City, California, with a manufacturing plant in Mesa. The Hughes facility in Mesa now consists of five buildings totaling 532,000 square feet on a portion of a 200-acre site adjoining Falcon field. The plant eventually is to employ more than 4,000 people.

Store Closing - Diamond's closed its department store in Mesa's Tri-City Mall on January 14th. The store's 108 employees have been transferred to other Phoenix area locations.

Arden-Mayfair Inc. has closed the Food Giant store at Tucson's El Con Mall. This is the third Tucson supermarket the chain has closed in two months. Company spokesmen have said that no further Tucson closings are planned.

Babbitts Home Center in Williams is closing indefinitely February 19th. The center has served the Williams area since 1947.

Fiesta Market, a sophisticated indoor version of the flea-market concept, closed unexpectedly. Some 200 Phoenix merchants had used the former Woolco store Friday through Sunday each week to sell their goods at discount prices.

Layoffs - The Cyprus-Bagdad Copper Co. furloughed 150 of its 875 workers in mid-January and reduced production 25 percent. This is the company's first layoff since 1938.

Republic Airlines will lay off 160 mechanics as it moves all its heavy aircraft maintenance from Phoenix. About 12 supervisors, five clerical and five management employees will also be laid off. All of the 182 to be laid off will have opportunities for positions elsewhere with Republic, based on seniority.

Light maintenance and line maintenance will continue at Sky Harbor with the heavier work consolidated at Minneapolis and Atlanta after February 15th. Slightly more than 100 mechanics will remain at Phoenix, along with staffs for reservations, flight training and operations.

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Arizona Labor Market NEWSLETTER

Arizona Department of Economic Security

Vol. VIII No. 3
March 1984

Unemployment Rate

Seasonally Adjusted
January*

ARIZONA	6.1%
Maricopa Co.	4.8%
Pima Co.	5.8%
UNITED STATES	8.0%

Consumer Price Index

National-December
1967 - Base Year

Wage Earner/Clerical
Worker - 301.5
% Chg. Yr. Ago 3.3

All Urban - 303.5
% Chg. Yr. Ago 3.8

Phoenix-4th Qtr.
1977 - Base Year

All Urban - 174.1
% Chg. Yr. Ago 4.1

Producer Price Index

National-January*
1967 - Base Year

All Commodities-308.1
% Chg. Yr. Ago 2.7

Finished Goods -289.4
% Chg. Yr. Ago 1.9

* Preliminary

ARIZONA OUTLOOK

The Annual Forecast Issue

This is the fourth year we have published our annual economic forecasts. Last year at this time, everyone wondered if, in fact, the long awaited recovery would arrive. Now everyone looks back at 1983 with the recognition that the recovery did arrive and has apparently been gaining strength with each passing month. Now our attention turns in a different direction. Can the recovery be sustained? Will budget deficits stop the recovery this year? What about inflation?

While we do not profess to have all the answers, we hope that the statistics and narrative that follow will lead you to a better understanding of where Arizona fits into the national scene and which way it will be headed in 1984 and into 1985. Please spend a little time looking through the material that follows and see if you agree with our outlook. As always, we leave it to you to be the final judge of our work.

As is usually the case, the products of this effort would not have been possible without the hard work of many new and old staff in Labor Market Information--particularly, Brian Cary and David Sinclair who did much of the work in putting the forecasts together.

ARIZONA IN 1983

After experiencing high unemployment and stagnant employment growth in 1982, Arizona welcomed the economic recovery that began early last year. An improving national economy brought stable prices and falling interest rates, stimulating construction activity throughout the state. Employment in construction surged by nearly 20 percent, reversing the decline of the previous year. As the recovery gained momentum, new jobs began to appear in many other industries.

Unfortunately, much of the employment growth was confined to certain areas while Arizona's nonmetropolitan areas continued to suffer from high unemployment and limited job opportunities. Many communities traditionally have depended on the state's copper mines and smelters for jobs and income. Weak demand, huge stockpiles and labor disputes prevented growth in copper activity, and as the year wore on, layoffs became more frequent. Falling household incomes in copper-mining areas reduced demand for all goods and services, resulting in fewer jobs in the population-serving trade and services sectors. Many of these communities also were devastated by late-summer flooding--the only silver lining in this gloomy scenario was some temporary construction employment generated by repairs made to the state's roads and bridges.

Some parts of the state which do not depend on copper-related employment experienced other problems. Border towns such as Douglas, Nogales and Yuma were hurt by the continuing weak state of the Mexican economy and the steady decline of the peso. Retail firms in border communities rely on trade with Mexican nationals for a large portion of their business. Fewer visitors spent less money in these towns during 1983, so unemployment remained unusually high in the border counties. Any increases in employment were due mostly to increases in demand for services related to population growth and to increasing "twin plant" manufacturing activity. Employment growth lagged in some of Arizona's northern counties, mostly because summer tourism continued to be a disappointment. Despite the improving American economy, visits to many of northern Arizona's scenic and recreation areas have not achieved levels reached during the 1970s, reducing the need for tourist-related services. Construction provided some jobs, both directly and indirectly--small increases were recorded by lumber operations supplying materials to Arizona's building sites, providing some relief to the forested areas of the northern counties. Government, after two years of decline or no growth, added small numbers of workers throughout the state, due mostly to increasing school enrollments rather than a general expansion of government services.

Arizona's metropolitan counties, Pima and Maricopa, accounted for virtually all of the employment growth in the state during 1983. The unemployment rate in Pima County fell steadily throughout the year, but the gains in employment were not as dramatic as those recorded in Maricopa County. The Tucson area is not as dependent as it once was on retail trade with Mexican nationals, but the lingering effects of poor economic performance in Mexico held back the growth of retail sales somewhat. Government, especially the university, is a major source of jobs in Pima County, but staff levels were held in check by budget constraints. The copper industry is not the dominant force in Pima County that it was before the local economy diversified. Nevertheless, lack of growth in mining, smelting and mining supplies had a dampening effect on the area economy. On the positive side, Pima County construction employment increased sharply; finance, insurance and real estate expanded staffs; and the county's growing high-technology sector added over 1,000 jobs, mostly in electronics, aircraft and defense-related manufacturing.

Maricopa County residents in search of employment opportunities continued to benefit from access to the most diversified job market in the state. The Phoenix area is virtually immune to the declining fortunes of the mining industry and the economic problems of Mexico have had little impact. As in the rest of the state, the interest- and cost-sensitive construction industry led the growth in employment as building activity boomed throughout the county. Very slow growth characterized the transportation and public utilities industries while divestiture prevented gains from taking place in communications employment.

Maricopa County's touted high-technology sector picked up momentum and began adding employees again during the year. Aerospace manufacturers benefited from strong economic performance nationally as well as from increased defense expenditures and responded by increasing their staffs. Phoenix's role as the business center of the desert increases seen in finance, insurance, real estate and business services. Hoteliers and resort owners in the area experienced some success in attracting off-season convention business, thereby helping to smooth the normal seasonal patterns in services and trade employment and creating demand for additional facilities to be built and staffed.

By the end of 1983, Arizona was well along the path of economic growth once again. This time, however, the state has achieved an unprecedented mix of industries and job opportunities. We hope that these opportunities eventually will be extended into the nonmetropolitan areas of Arizona. Meanwhile, Arizona did enjoy a solid year of economic growth in 1983 and can look forward to even more employment opportunities in 1984.

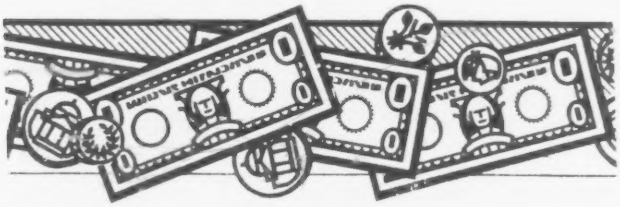
NATIONALLY
1983 - INTO 1984 AND BEYOND

Looking back over 1983, the much anticipated recovery finally arrived. After three years of only marginal growth in the national economy, things finally started to turn around. Of course, there are many reasons why the economy did not rebound as quickly as many people had expected, but most of the problems revolved around inflation and the attempts to reduce it. In 1981, consumer prices rose 10.4 percent. Reducing that to 1983's rate of 3.2 percent forced unemployment to rise significantly and general business activity to decline. Now with the recovery over a year old, it is important for us to look back over the territory we have covered and to anticipate where we will be in the future.

The first six months of 1983 were much in line with what everyone had expected. The economy began to recover slowly as the interest-sensitive sectors of construction and automobiles enjoyed an environment of declining interest rates. Although by historical standards interest rates were still very high, consumers apparently felt that this was the right time to make those purchases. As nearly everyone knows by now, the automobile companies enjoyed record profit levels in 1983, after record losses a year or so earlier. And in housing the recovery was equally impressive.

But the second half of 1983 was the real surprise. Few, if any, economists expected the recovery to proceed as quickly as it did after the middle of the year. The unemployment rate declined steadily from 10.0 percent in June to 8.2 percent in December. This produced the largest annual decline ever recorded in the unemployment rate. Consumer confidence rose steadily and with it, purchases at retail trade stores and production by many manufacturers. What had started slowly was now a quickly-recovering economy. And the recovery was very traditional by economic standards. Initially, the interest-sensitive industries responded to a decline in interest rates. This led to increased consumer confidence and further purchases in the trade and services sectors. Now as we enter 1984, we are poised to enter another phase of the recovery. Currently, many manufacturers are hesitant to add new staff because they are unsure that the recovery will continue. But in the months ahead, a lack of inventories and growing competition from other companies will force them to expand production. This will probably be the most critical time for the economy. To expand, these companies will need additional cash. Two possible

sources are internal cash flow or money borrowed from the bank. Unfortunately, internal cash flow is usually insufficient to fund significant expansion. And loans from the bank will become more expensive as the federal government continues to borrow to pay the deficit, and other companies try to borrow money too. Therefore, as the accompanying table indicates, interest rates will fall only slightly before rising later this year and the unemployment rate will not fall much further.



Of course, 1984 is an election year, and many people have drawn a correlation between economic activity and election-year politics. While there are many problems to be solved, little substantive action is expected on the deficit or spending changes until after the election. Meanwhile, the Federal Reserve is expected to keep the money supply from growing any more rapidly than in 1983. With the economy now recovering at a sustainable pace, the Federal Reserve will be very cautious about starting the inflationary spiral again. Of particular interest will be the union wage settlements that are scheduled for negotiation in 1984. In many industries (such as automobiles where the UAW will be negotiating a contract), improved economic conditions may encourage unions to seek substantial raises. How these questions are finally settled will help to determine our economic course in the future.

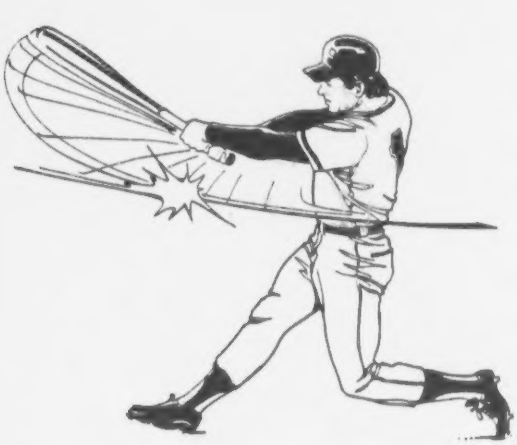
In general, 1984 will be a continuation of the traditional recovery that started in 1983. The November election will inhibit significant economic changes as interest rates remain high and unemployment rates fall marginally. Structural shifts in the economy will continue to favor high technology and services companies to the detriment of traditional heavy manufacturing businesses. But we are far from being out of the woods. As the table indicates, unemployment is expected to remain over 7 percent and economic growth in 1985 may slow appreciably.

KEY NATIONAL VARIABLES

	1984				1985		1983 ANNUAL AVERAGE	1984 ANNUAL AVERAGE	1985 ANNUAL AVERAGE
	QTR. 1	QTR. 2	QTR. 3	QTR. 4	QTR. 1	QTR. 2			
Real Gross National Product	1592.1	1607.3	1624.5	1640.7	1652.2	1661.8	1534.8	1616.2	1667.6
GNP Percent Change	5.6	3.9	4.3	4.1	2.8	2.4	3.3	5.3	3.2
Inflation	4.2	4.3	4.5	4.6	4.9	4.8	3.2	4.5	4.7
Prime Rate	11.0	10.9	10.5	10.8	11.2	11.5	10.8	10.8	11.2
Unemployment Rate	8.0	7.8	7.6	7.5	7.4	7.4	9.4	7.7	7.4

FORECASTING PERFORMANCE IN 1983

Sometimes it seems that forecasting future activity in the economy is much like trying to hit a moving target. Just when you think that everything has been settled, one of the pieces changes and everything has to be refigured again. That is precisely what happened in 1983. Our forecasts of local economic activity depend on what the national economy does. A year ago, nearly every national economic forecast called for a slow but steady economic recovery in 1983. And at least for the first six months of the year, that was the case. But in the second half of the year, the recovery was much more rapid than expected. And since the more rapid improvement was in sectors upon which Arizona's economy is built, construction and services, our economy expanded more rapidly. Because the national forecasts underestimated the recovery and its composition, our forecasts were conservative.



Another problem that affected our forecasts was the annual benchmarking of the employment by industry statistics. Before the benchmarking process, our forecast of wage and salary employment was low by less than 0.2 percent. But following the revisions, we were low by about 2.0 percent. And the reason for that substantial change was the rapid growth that occured in construction and services, two areas that had surprised many people.

A third area that must be considered when evaluating forecast performance is the many uses that the model must perform. In addition to forecasting, the model is often used by agencies and businesses to simulate alternative scenarios about the economy. Many of our users request that we develop both more optimistic and more pessimistic national scenarios and then estimate what the impact would be on Arizona. But in developing a simulation capacity, certain features that might be desirable in a strictly forecasting model had to be dropped. Exactly what compromise is struck is always the point of contention.

All of these points aside, the model performed reasonably well in 1983. During the first half of the year, it was nearly right on the money. Except for some minor problems, everything went very well. But in the second half of the year, the services and construction areas, in particular, grew quite strongly. This, of course, worked to our disadvantage because the national forecasts did not accurately anticipate this acceleration.

By area, Phoenix and Tucson enjoyed most of the growth during 1983 and our relatively conservative forecasts show that situation. In general, the only areas about which we were too bullish were government and mining. The serious plight of the copper industry was not fully appreciated. And in government, the rate of growth has slowed dramatically. Except for employment growth in the school sector, government employment is actually falling.

In some areas, such as manufacturing and trade, the model performed very well. But as mentioned above, that performance is offset by conservative forecasts in construction and services. Hopefully, this year's forecasts will build on the strengths while minimizing the weaknesses. Only time will tell. But because forecasting is so improtant to running any successful project, we will continue to refine and improve our techniques.

Before predicting the course Arizona's economy will follow over the next two years, the national economic environment must be assessed. This provides a backdrop to compare with Arizona's performance. More importantly, the dynamic forces which shape the state's economy can be identified and included in the forecasting process. In 1983, declining interest rates, stable prices, surging housing starts, lower taxes and increased defense spending were among the factors that lifted the state out of the recession and onto the road to recovery. These aren't the only variables influencing Arizona's future. What about copper prices: up or down? Will defense spending be slashed to balance the budget, or will taxes be increased? Will interest rates rise, and if so, when and by what amount? Nobody can answer these questions with certainty, but assumptions must be made regarding the course of world and national events to allow these forces to interact in a forecasted scenario with the structure of Arizona's economy.

We expect Arizona to continue to enjoy more growth and less unemployment than the national average during the next two years, much as it has in the past. The composition of employment in the state is evolving in a way that reflects the dynamic nature of Arizona's economy. Arizona is moving away from its traditional economic base of mining, tourism and agriculture and toward a more diverse industrial mix.

The surge in construction activity that began last year will moderate in 1984. The rate of housing starts will decline, causing construction employment in Arizona to level off by the end of the two-year period. Residential development in the urban areas will provide most of the jobs and will be the most interest-sensitive component of construction. Many commercial developments are in progress or in the planning stages, and large scale projects such as road building and power plant construction in various parts of the state will keep construction employment at relatively high levels. The risk of a rapid increase in interest rates is very real, however, and may cause construction activity to level off sooner than expected.

Interest rates should remain relatively stable, rising gradually in late 1984 and 1985. This will allow durable goods manufacturers to continue to invest in the necessary facilities to expand production in Arizona, creating demand for additional workers. Most of the increase in durable manufacturing will be in the high-technology sector, most of which will be located in the Phoenix and Tucson areas. Strong growth is expected in aerospace manufacturing due to increases in defense spending on planes, missiles, helicopters and guidance systems. If defense spending is limited as a means of reducing the federal deficit, this sector will not grow as rapidly.

The full range of population-serving industries is expected to be even more robust than recent experience would indicate. The need for business and financial services will accelerate, especially in the Phoenix area, as the state's economy becomes more sophisticated. Phoenix is emerging as a regional center for commerce and will develop support services like those in Los Angeles, Denver and Houston. Employment in the state's hotels and motels will accelerate--the current winter season is the strongest in several years and the summer tourist season should respond favorably to stable gasoline prices and a strong national economy. The Summer Olympics will generate tourism, some of which will spill over to Arizona. The overall level of business and commerce will result in more travel and lodging demand, and enough off-season business should be attracted to limit the number of workers laid off during traditionally slack periods.

Employment in retail trade will continue expanding at a rapid clip through 1985. Eating and drinking establishments will benefit from generally better conditions in the state economy, more tourism and an increasing volume of convention business. Retail stores enjoyed the best Christmas season in several years and seasonal layoffs have been less frequent. The boom in housing construction has created a need for rapid development of neighborhood shopping centers. Large numbers of cashiers, sales clerks and managers will be hired to staff them. Combined, the services and trade industries will add nearly 60,000 jobs during the next two years.

Not all sectors of Arizona's economy will grow so quickly. The copper mining industry, beleaguered by low prices and lagging product demand, is an unlikely source of new jobs in the near future. Public sector hiring will be limited by sluggish revenues and nagging deficit problems at all levels of government. By mid-1984, however, tax collections may have responded to improving economic conditions, making a moderate growth rate in public employment possible. The prisons and schools are the most likely sources of new jobs in the near future.

Arizona is expected to grow during the next two years at a rate comparable to the years before the recent economic slump. Wage and salary employment will grow by 5.6 percent in 1984 and 4.2 percent in 1985, representing over 100,000 new jobs. Unfortunately, unemployment will remain persistently high in many of the state's nonmetropolitan areas, especially those dependent on mining and foreign trade. Maricopa County will benefit the most. Unemployment in Phoenix will remain well below the state and national averages for the foreseeable future. Pima County will grow less rapidly but still will enjoy a much healthier outlook than in the recent past. Unemployment, while somewhat higher than in Maricopa County, will be low compared to 1982-83.

As Arizona moves into the mid-1980s, it will continue to enjoy the natural economic advantages that have allowed growth to continue at a time when job seekers in many other states face a bleak future. There is much uncertainty in the national economic picture: interest rates, tax policies, labor negotiations, foreign exchange rates and commodities prices are only a few important factors considered in the forecast, any of which could dampen Arizona's prospects. Barring any major disruptions, the outlook for the state is bright.

MARICOPA COUNTY, 1984-1985

Phoenix, as the state capital and home of the state's largest banks, is the traditional economic hub of Arizona. In spite of this, some observers believe that Phoenix is still developing as a regional commercial center. Growing evidence suggests this evolution will continue through the next two years and beyond. All types of business and financial services will expand rapidly while Phoenix asserts its leadership role in the economy of the Southwest.

This process is currently the major force shaping the local economy and will have an impact on a variety of industries, ranging from manufacturing to personal services. Maricopa County's finance and insurance sector is expected to create over 3,000 new jobs by the end of 1985. Business services employment will continue to boom at an annual rate exceeding 6 percent. The location and expansion of national credit card operations in the Phoenix area, a trend that shows no signs of abating, is another source of new jobs.

As the volume of business transacted in the Valley rises, business-related travel will increase accordingly. Despite grim conditions nationally, airlines continue to expand operations at Sky Harbor Airport at a rapid pace. Recreational travel will show similar growth due to the expected return to pre-recession levels of winter tourism.

Hotels and resorts will share in the growth generated by the business expansion in Maricopa County and the improvement in seasonal demand will boost employment even more. These factors, combined with plans for current and future hotel/motel development, will result in job growth of over 9 percent in 1984 and nearly 7 percent in 1985. The restaurant business will expand rapidly -- local demand is strong and the growth in business and tourist activity implies even more gains in the near future. The increasing success of the Valley in attracting major conventions, especially during the traditionally slow season, will help to smooth the conventional seasonal pattern.

The well-publicized high-technology manufacturing sector is expected to respond to the improving national economy by expanding operations in Maricopa County over the next two years. Many of the new jobs with electronics firms will be located in the Black Canyon corridor and the East Valley area. Much of the employment generated by defense contractors will be in the same areas. Overall, employment growth in the high-technology businesses will approximate 6 percent annually, with over 5,000 new jobs added by the end of 1985.

The air of uncertainty currently surrounding the national economy affects construction and government more than most other sectors. Construction employment is so sensitive to interest rates and the cost of materials that weakening financial markets could easily reverse the gains expected in this sector. Assuming a relatively stable money market, growth should continue strongly this year before leveling off in 1985. Federal deficits will squeeze the government's hiring activity as well as the nation's financial markets, while budget tightness at the state and local levels will hold employment in the public sector below that might be expected in an otherwise favorable climate. Phoenix, as the state's capital, will enjoy a disproportionate share of whatever growth occurs in the state government's work force.

After a couple of relatively slow years, 1983 was a welcome beginning to the expansion of job opportunities that will continue in Maricopa County through next year. Unemployment, currently below 5 percent, will stay relatively low, with any increase resulting more from rapid labor force growth rather than from poor economic conditions. The generally favorable outlook for employment in the county will continue into the future as the area's economic advantages become more prominent.

About 75 percent of the 100,000-plus jobs to be created in Arizona during the next two years will be in Maricopa County. Already the most diverse in the state, Maricopa County's economy will become even more complex in the next two years as Phoenix assumes its natural role as the center for the economy of the desert Southwest. This diversity will ensure a dynamic growth pattern and minimize the negative effects that would result from a downturn in the national economy. Job prospects in the months ahead appear to be very good and employment in Maricopa County is expected to grow at a healthy rate into 1985 and beyond.

PIMA COUNTY
1984-1985

The recovery that began in Pima County in 1983 is expected to continue for the next two years. Total wage and salary employment should grow by a healthy 8.0 percent in 1984 and a strong 3.5 percent in 1985, resulting in 17,000 new jobs by the end of 1985. The county's economy is continuing to mature and diversify. As a result, industries such as trade, services, manufacturing and finance, insurance and real estate will be the strongest performers. Construction and transportation, communications and public utilities are also expected to do well. Mining is the only industry that will probably not participate in the county's growth in the near future.

If interest rates remain fairly stable, then construction should continue to expand. It is anticipated that employment will average around 17,100 for 1984, up from 1983's level of 14,800. While this appears to be a huge increase, it is important to note that employment averaged around 16,000 for the last half of 1983. By the end of 1984 or the beginning of 1985, employment should peak and begin a slight decline. For 1985, the average level of employment should be virtually unchanged from 1984. At this time, it appears not all types of construction -- residential, commercial and heavy -- will participate in the industry's growth.

Trade and service employment should grow 5.8 percent and 4.6 percent, respectively, in 1984. This is the result of not only a continuing strong national economy but population growth as well. Over the next two years, employment in these two industries should increase by around 9,200. The only negative influence on these industries is the weakness of the peso. It appears that the peso has achieved some stability in relation to the dollar but it may be some time before Mexican nationals again trade heavily in the county. Also, as the county's economy grows and matures, it may well be that the effect of this lost trade will decline.

An industry that has exhibited strong growth in recent years is manufacturing. This trend should continue into 1985 as well. This year will see around 1,000 new jobs, mostly in the high tech related industries. Likewise, 1985 will see an additional 1,300 jobs created. Given the current commitment to strengthening the nation's defenses and the growth in computer technology, manufacturing in the county will continue to expand and play an important role in the county's economic development.

Accompanying the increase in importance of manufacturing in Pima County is the increase in financial services being offered locally. Until recently, most of the state's financial business was conducted in Phoenix. The growth in the Tucson area has encouraged banks and other financial institutions to open and expand operations. The next two years should see a continuation of this trend. Finance, insurance and real estate will see an increase in employment of around 1,000 over the next two years. This employment growth is also the result of expected strong housing sales, especially in 1984.

Two other areas that will show moderate growth in 1984 and 1985 are transportation, communications and public utilities and government. T.C.P.U. is expected to add around 600 new workers by 1985. Government will show slight growth with most of the increase coming in the area of education. Overall, government is expected to add around 500 new employees in 1984 and 800 in 1985.

As previously mentioned, copper mining should continue to struggle in the near future. There is currently an excess supply of copper on the international market which has forced the price down considerably. The futures price of copper indicates that there is some possibility of recovery in late 1985. However, the next year and a half could see more layoffs. While the forecast indicates a slight increase in employment in 1984 over 1983, this is due to statistical distortions caused by strike activity in 1983. Over the next two years, employment in mining should remain between 3,700 and 3,900.

Overall, the next two years should be a time of growth in Pima County. For 1984, the unemployment rate should fall to around 6.7 percent from 1983's rate of 8.9 percent. As the national economy slows in 1985, there may be a slight rise to around 7.1 percent. This will be largely due to new entrants in the job market outpacing the ability of the economy to absorb them rather than companies laying off existing workers.

NONMETROPOLITAN ARIZONA, 1984

The problems of the state's rural areas have been well documented in the last 12-18 months. A combination of generally slow economic growth coupled with the devaluation of the peso and copper mining layoffs has crippled many communities. While layoffs are the most often noted problem in this area, slow economic growth has been equally devastating. Statewide, the number of jobs has grown by 5.0 percent since 1980. By contrast, 7.5 percent of the jobs in nonmetropolican Arizona -- a total of 14,700 -- have been lost during the same period. Many people have either left the area or have moved to the state's metropolitan areas in search of work. The short-term problems of unemployment and under-employment will be compounded in the future as a declining labor force makes it more difficult to recruit and retain business.

Unemployment in this area is high and is not expected to decline dramatically. In January 1983, the unemployment rate in this area averaged 17.0 percent, but by December had fallen to 12.5 percent. 1984 will see little improvement in the unemployment rate as increasing job opportunities encourage people to enter the labor force in search of new jobs. Communities dependent on the copper mining industry will continue to suffer the most. Low copper prices and the resulting lack of profitability will continue to force many companies to cut staffs and reduce hours. But looking further into 1985, we expect mining employment to rise slowly.

The major source of economic strength during 1984 and 1985 will be in the services and trade sectors. Much of that will come from rising tourism activity and improving trade business across the Mexican border. For the last few years, summer tourism business has been down. But the much improved national economy as well as an increase in winter tourism point to strong summer months for the state's northern counties. It also appears unlikely that the Mexican peso will decline further in value. After a period of time, merchants on this side of the border will probably be able to recover at least a portion of the business they had lost. Although it will be quite some time before that process is completed, it has apparently started.

A final industry that will continue to retard recovery in the rural counties is government. Over 30 percent of all the jobs are in government, the largest industry by far. But reduced federal expenditures and dwindling revenue sources will further force government cutbacks. Conditions are becoming quite tight, particularly at the local government level. If it were not for rising employment levels in the schools, greater cuts would probably have occurred.

Economic improvement will remain quite slow in rural Arizona, with a 2.5 percent increase in jobs in 1984 and a 3.0 percent increase forecast in 1985. The comparable statewide figures are 5.6 and 4.2 percent. The structural shift away from copper mining and government is expected to continue as both national and local economic conditions emphasize the trade and services sectors of the area. Of all the sections of the state, our rural counties will continue to suffer the most.

Arizona Labor Force and Employment

January 1984 (in thousands)

	ARIZONA				
				-- Amt Change --	
	Jan.* 1984	Dec. 1983	Jan. 1983	Dec. to Jan.	1983 to 1984
TOTAL CIVILIAN LABOR FORCE	1398.1	1406.5	1348.8	-8.4	+49.3
Total Unemployment	87.8	95.1	146.9	-7.3	-59.1
Rate	6.3	6.8	10.9	---	---
Rate (Sea. Adj.)**	6.1	6.9	10.7	---	---
Total Employment	1310.3	1311.4	1201.9	-1.1	+108.4

THE ABOVE LABOR FORCE STATISTICS SHOULD NOT BE USED

NONAGRICULTURAL WAGE AND SALARY EMPLOYMENT BY PLACE OF WORK

	Jan.* 1984	Dec. 1983	Jan. 1983	Dec. to Jan.	1983 to 1984
TOTAL WAGE AND SALARY	1099.4	1115.5	1027.4	-16.1	+72.0
Manufacturing	162.0	161.7	149.1	+0.3	+12.9
Durable Goods	126.6	126.1	115.2	+0.5	+11.4
Stone, Clay and Glass	6.7	6.5	5.2	+0.2	+1.5
Primary and Fabricated Metals	14.3	14.3	14.2	+0.0	+0.1
Primary Metals	6.4	6.2	6.6	+0.2	-0.2
Fabricated Metals	7.9	8.1	7.6	-0.2	+0.3
Machinery	63.6	63.7	59.7	-0.1	+3.9
Other Durable Goods	42.0	41.6	36.1	+0.4	+5.9
Aircraft and Missiles	18.9	18.6	16.9	+0.3	+2.0
Lumber and Wood Products (Except Furniture)	6.8	6.9	5.5	-0.1	+1.3
All Other Durable Goods	16.3	16.1	13.7	+0.2	+2.6
Nondurable Goods	35.4	35.6	33.9	-0.2	+1.5
Food and Kindred Products	7.6	7.7	8.6	-0.1	-1.0
Apparel	5.6	5.6	5.0	+0.0	+0.6
Printing and Publishing	12.6	12.6	11.6	+0.0	+1.0
All Other Nondurable Goods	9.6	9.7	8.7	-0.1	+0.9
Mining and Quarrying	14.3	14.3	14.6	+0.0	-0.3
Copper Mining	11.4	11.4	11.7	+0.0	-0.3
Other Mining and Quarrying	2.9	2.9	2.9	+0.0	+0.0
Construction	81.4	82.2	66.3	-0.8	+15.1
Trans., Communications, and Public Utilities	57.6	58.0	55.9	-0.4	+1.7
Transportation	24.3	24.8	23.0	-0.5	+1.3
Communications and Public Utilities	33.3	33.2	32.9	+0.1	+0.4
Trade	266.5	271.4	252.5	-4.9	+14.0
Wholesale Trade	54.0	53.6	50.4	+0.4	+3.6
Retail Trade	212.5	217.3	202.1	-5.3	+10.4
General Merchandise and Apparel	37.0	40.5	37.6	-3.5	-0.6
Food Stores	33.8	34.4	33.1	-0.6	+0.7
Automotive and Service Stations	24.5	24.5	23.5	+0.0	+1.0
Eating and Drinking Places	74.5	74.4	68.2	+0.1	+6.3
Other Retail Trade	42.7	44.0	39.7	-1.3	+3.0
Finance, Insurance, and Real Estate	66.9	67.0	63.1	-0.1	+3.8
Services and Miscellaneous	248.4	247.5	227.2	+0.9	+21.2
Hotels and Other Lodging Places	25.6	25.3	23.5	+0.3	+2.1
Business Services	49.8	49.9	42.9	-0.1	+6.9
Health Services	66.1	65.9	62.9	+0.2	+3.2
Other Services	106.9	106.4	97.9	+0.5	+9.0
Government	202.3	213.4	198.7	-11.1	+3.6
Federal	39.1	39.1	37.7	+0.0	+1.4
State and Local	163.2	174.3	161.0	-11.1	+2.2
School	98.1	109.3	95.6	-11.2	+2.5

* Preliminary
** Normal seasonal variations have been eliminated to reflect underlying economic trends.
NOTE--Data have been adjusted to the 1972 Standard Industrial Classifications (SIC).

January 1984 (in thousands)

MARICOPA COUNTY					PIMA COUNTY				
			-- Amt Change --					-- Amt Change --	
Jan.* 1984	Dec. 1983	Jan. 1983	Dec. to Jan.	1983 to 1984	Jan.* 1984	Dec. 1983	Jan. 1983	Dec. to Jan.	1983 to 1984
878.6	881.5	828.4	-2.9	+50.2	259.6	261.2	251.8	-1.6	+7.8
43.1	46.6	72.1	-3.5	-29.0	15.3	16.6	27.8	-1.3	-12.5
4.9	5.3	8.7	---	---	5.9	6.4	11.0	---	---
4.8	5.4	8.5	---	---	5.8	6.5	11.0	---	---
835.5	834.9	756.3	+0.6	+79.2	244.3	244.6	224.0	-0.3	+20.3

FOR ECONOMIC ASSISTANCE PROGRAMS.

NONAGRICULTURAL WAGE AND SALARY EMPLOYMENT BY PLACE OF WORK

MARICOPA COUNTY					PIMA COUNTY				
714.8	724.5	659.2	-9.7	+55.6	203.5	206.8	190.8	-3.3	+12.7
117.1	116.6	107.5	+0.5	+9.6	27.5	27.8	25.4	-0.3	+2.1
92.4	91.8	84.7	+0.6	+7.7	22.8	22.8	20.7	+0.0	+2.1
4.1	3.9	3.1	+0.2	+1.0					
9.0	9.2	9.4	-0.2	-0.4					
50.9	50.7	47.3	+0.2	+3.6					
28.4	28.0	24.9	+0.4	+3.5					
24.7	24.8	22.8	-0.1	+1.9	4.7	5.0	4.7	-0.3	+0.0
5.1	5.2	5.9	-0.1	-0.8					
3.3	3.2	2.4	+0.1	+0.9					
9.4	9.4	8.5	+0.0	+0.9					
6.9	7.0	6.0	-0.1	+0.9					
0.6	0.6	0.6	+0.0	+0.0	3.6	3.6	3.9	+0.0	-0.3
56.8	57.5	46.4	-0.7	+10.4	16.4	16.4	12.1	+0.0	+4.3
37.4	37.6	35.5	-0.2	+1.9	8.8	8.8	8.6	+0.0	+0.2
16.3	16.6	15.0	-0.3	+1.3	3.8	3.8	3.6	+0.0	+0.2
21.1	21.0	20.5	+0.1	+0.6	5.0	5.0	5.0	+0.0	+0.0
180.9	184.7	170.1	-3.8	+10.8	43.9	44.9	42.4	-1.0	+1.5
42.2	42.1	39.3	+0.1	+2.9	6.4	6.4	5.7	+0.0	+0.7
138.7	142.6	130.8	-3.9	+7.9	37.5	38.5	36.7	-1.0	+0.8
23.5	26.5	24.4	-3.0	-0.9	6.9	7.3	6.8	-0.4	+0.1
21.8	22.3	21.2	-0.5	+0.6	5.4	5.6	5.4	-0.2	+0.0
15.7	15.7	14.7	+0.0	+1.0	4.0	4.0	4.0	+0.0	+0.0
48.0	47.5	43.2	+0.5	+4.8	13.7	13.7	13.4	+0.0	+0.3
29.7	30.6	27.3	-0.9	+2.4	7.5	7.9	7.1	-0.4	+0.4
52.3	52.3	49.4	+0.0	+2.9	9.5	9.6	8.6	-0.1	+0.9
168.6	167.9	151.3	+0.7	+17.3	47.4	47.3	44.4	+0.1	+3.0
15.7	15.4	14.2	+0.3	+1.5	4.3	4.3	3.9	+0.0	+0.4
41.2	41.4	35.4	-0.2	+5.8	6.9	6.9	6.0	+0.0	+0.9
44.6	44.3	41.7	+0.3	+2.9	13.8	13.7	13.7	+0.1	+0.1
67.1	66.8	60.0	+0.3	+7.1	22.4	22.4	20.8	+0.0	+1.6
101.1	107.3	98.4	-6.2	+2.7	46.4	48.4	45.4	-2.0	+1.0

-- Prepared by Labor Market Information, Research and Analysis (CPS-MOD, 1/84)

NONMETROPOLITAN COUNTIES LABOR FORCE AND EMPLOYMENT

January 1984 (Preliminary)

	Apache	Cochise	Coconino	Gila	Graham	Greenlee	La Paz
TOTAL CIVILIAN LABOR FORCE*.	14,650	28,800	33,075	14,400	7,650	3,925	4,725
Total Unemployment	2,150	2,700	3,300	2,350	850	300	650
Rate	14.7%	9.4%	10.0%	16.3%	11.1%	7.6%	13.8%
Rate (Seas. Adj.)**. . . .	14.2%	9.0%	9.0%	15.3%	11.2%	7.3%	-INA-
Total Employment	12,500	26,100	29,775	12,050	6,800	3,625	4,075

THE ABOVE LABOR FORCE STATISTICS SHOULD NOT BE USED
FOR ECONOMIC ASSISTANCE PROGRAMS

	Apache	Cochise	Coconino	Gila	Graham	Greenlee	La Paz
TOTAL WAGE AND SALARY. . . .	12,875	20,975	27,650	9,600	4,250	3,100	2,325
Manufacturing.	625	1,425	2,500	1,450	100	350	100
Mining and Quarrying	50	350	50	1,475	75	1,650	0
Construction	1,450	850	900	400	100	25	50
Trans., Comm., & Pub. Util..	1,625	1,275	2,125	275	150	50	50
Trade.	1,050	4,350	6,525	1,700	1,150	325	800
Fin., Insur., & Real Estate.	150	600	575	225	100	50	100
Services and Miscellaneous .	3,175	2,600	6,150	1,500	700	100	650
Government	4,750	9,475	8,825	2,575	1,875	550	575

	Mohave	Navajo	Pinal	Santa Cruz	Yavapai	Yuma
TOTAL CIVILIAN LABOR FORCE*.	21,750	24,825	30,950	8,975	31,075	35,100
Total Unemployment	2,675	3,050	4,025	1,375	2,425	3,550
Rate	12.3%	12.3%	13.0%	15.3%	7.8%	10.1%
Rate (Seas. Adj.)**. . . .	11.7%	11.2%	12.9%	17.1%	6.9%	-INA-
Total Employment	19,075	21,775	26,925	7,600	28,650	31,550

THE ABOVE LABOR FORCE STATISTICS SHOULD NOT BE USED
FOR ECONOMIC ASSISTANCE PROGRAMS

	Mohave	Navajo	Pinal	Santa Cruz	Yavapai	Yuma
TOTAL WAGE AND SALARY. . . .	14,375	16,750	22,475	7,525	16,950	22,525
Manufacturing.	2,100	1,650	2,575	875	1,950	1,675
Mining and Quarrying	250	1,075	4,050	25	1,050	50
Construction	800	550	600	200	900	1,400
Trans., Comm., & Pub. Util..	900	1,575	1,000	550	875	975
Trade.	4,100	2,925	3,825	3,225	4,425	7,425
Fin., Insur., & Real Estate.	700	275	700	225	700	725
Services and Miscellaneous .	2,675	4,500	2,150	1,050	3,100	4,075
Government	2,850	4,200	7,575	1,375	3,950	6,200

*Adjusted to the Current Population Survey (CPS) to reflect place of residence.
**Seasonal adjustment not applicable for economic assistance programs.

NOTE--Series for Yuma and La Paz counties start January 1983. Data are not comparable to any past series.

ARIZONA LABOR FORCE AND EMPLOYMENT FOR ECONOMIC ASSISTANCE PROGRAMS

December 1983 (Final)

County	Civilian Labor Force	Employment	Unemployment	Rate
Statewide	1,406,501	1,311,422	95,079	6.8%
Apache	14,883	12,712	2,171	14.6
Cochise	28,983	26,122	2,861	9.9
Coconino	34,488	31,020	3,468	10.1
Gila	14,660	11,820	2,840	19.4
Graham	7,774	6,760	1,014	13.0
Greenlee	3,827	3,563	264	6.9
La Paz	4,784	4,113	671	14.0
Maricopa	881,506	834,917	46,589	5.3
Mohave	21,975	19,268	2,707	12.3
Navajo	24,710	21,798	2,912	11.8
Pima	261,166	244,523	16,643	6.4
Pinal	31,645	27,186	4,459	14.1
Santa Cruz	8,990	7,254	1,736	19.3
Yavapai	31,298	28,909	2,389	7.6
Yuma	35,812	31,457	4,355	12.2

Data have been adjusted to the 1972 Standard Industrial Classification (SIC). These figures are the only official BLS labor statistics to be used for revenue sharing purposes. They are not designed to be used as economic indicators. Note: Series for Yuma and La Paz counties start January 1983. Data are not comparable to any past series.

ESTIMATED HOURS AND EARNINGS OF PRODUCTION WORKERS IN SELECTED INDIUSTRIES IN ARIZONA

January 1984

INDUSTRY	AVERAGE WEEKLY EARNINGS			AVERAGE WEEKLY HOURS			AVG. HOURLY EARNINGS		
	JAN.* 1984	DEC. 1983	JAN. 1983	JAN.* 1984	DEC. 1983	JAN. 1983	JAN.* 1984	DEC. 1983	JAN. 1983
FOR THE STATE OF ARIZONA*									
Manufacturing	371.16	385.62	346.81	40.3	42.1	39.5	9.21	9.14	8.78
Aircraft & Missiles	518.87	566.40	480.24	44.5	47.2	43.5	11.66	12.00	11.04
Food & Kindred Products	319.92	325.51	331.66	37.2	41.1	41.2	8.60	7.92	8.05
Primary Metals	485.47	505.60	456.61	38.9	40.0	38.5	12.48	12.64	11.86
Machinery	341.90	347.66	318.40	40.8	41.2	38.5	8.38	8.42	8.27
Copper Mining	537.14	572.90	523.30	39.7	42.5	40.1	13.53	13.48	13.05
Construction	417.56	439.24	473.24	36.5	37.8	36.6	11.44	11.62	12.93
Utilities	554.18	544.32	471.24	44.8	44.8	42.0	12.37	12.15	11.22
Retail Trade**	207.01	207.26	204.90	32.6	32.6	33.7	6.35	6.35	6.08
Wholesale Trade	347.65	343.07	332.24	40.9	40.6	39.6	8.50	8.45	8.39

* Preliminary

** Excludes eating and drinking places.

NOTE--These estimates are based on a sample of full and part-time production and related employees whose payroll and hours are reported for the pay period which includes the 12th of the month. All data have been adjusted to the 1972 Standard Industrial Classifications (SIC).

--Prepared by Labor Market Information, Research and Analysis (1972 SIC. 1/83)

THE ARIZONA LABOR FORCE IN JANUARY 1984

The unemployment rate dropped significantly in January, falling from 6.9 to 6.1 percent. While this decline continues to indicate the overall economic improvement the state has observed for the last six-to-nine months, our optimism is more cautious this month. Much of the improvement was related to heavy seasonal activity that occurs at this time of the year in schools, retail trade businesses and construction. In general, although we expect hiring to improve in 1984, it appears that the unemployment rate statewide and in the two metropolitan areas will not fall much further this year.

Historically, we see large employment drops in January that are related to the Christmas season and our winter weather--particularly among many retail trade businesses. Temporary staffs are hired in October and November, but when the Christmas rush is done, those staffs are reduced. While that continues to be the case, the magnitude of these swings has decreased in the last few years. Many companies seem less interested in hiring seasonal workers than was true a few years ago, thus reducing the large seasonal layoffs that have usually occurred at the first of the year. Therefore, our seasonal adjustment process tends to overstate improvements in the economy following the holidays.

Much the same situation seems to be happening in the schools. Many teachers, who are hired on semester-to-semester contracts, were formerly not on the payroll during Christmas break. But due to many different factors, that trend also seems to be declining.

A final industry that usually experiences significant employment losses in January is construction. A combination of cold winter weather in the state's northern counties and rain in the metropolitan areas usually reduces the amount of work being done. But again in this industry, unusual seasonal activity has kept employment from falling. The metropolitan areas have enjoyed an unusually dry January and February, while the winter cold has not cut as deeply as usual into building activity in the north.

But it would be unfair to characterize all of the improvement in January's unemployment rate as being the result of unusual seasonal activity. In addition to the less-than-usual drops mentioned, both the services and manufacturing industries showed improvement. This was particularly true in Maricopa County where a few large electronics firms continued to expand. If any sector of our economy looks particularly strong, it must be our high technology (electronics and aerospace) manufacturers, and services. Both industries are experiencing strong and growing demand for their products. And in services, the labor-intensive nature of its work will create a large number of jobs.

January's decline in unemployment probably does not indicate what we can expect throughout the year. Part of the improvement was related to unusual seasonal activity that will not be repeated. As well, the relatively low unemployment rates in Tucson and Phoenix will not fall much further. People who had left the labor force when unemployment rates were high are beginning to reenter the labor market in search of employment. In addition, the decline in our unemployment rate is beginning to attract people to our state from other areas. The net result is that although the economy will continue to create a large number of jobs in 1984, the unemployment rate cannot be expected to fall appreciably in the months ahead.

ARIZONA UNEMPLOYMENT INSURANCE ACTIVITIES - DECEMBER

	December 1983	November 1983	December 1982	% Change From One Year Ago
Arizona Claimants Served**	36,714	32,969	74,799	-50.9%
Arizona Average Weeks Unemployed***	9.8	9.9	10.5	- 6.7%
Arizona Benefits Paid**	$ 12,165,136	$ 10,677,360	$ 26,071,264	-53.3%
Arizona Trust Fund Balance	$165,815,096	$173,108,109	$203,655,116	-18.6%

*Estimated **All Programs ***UI Only

WHAT IS THE MODEL?

When the topic turns to forecasts, in particular, economic forecasts, a veil of mysticism seems to surround them. Thoughts of crystal balls, computers and analysts who are somehow able to see into the future give forecasting an aura that is often undeserved. There are, of course, many ways to make forecasts. At one extreme, forecasts can be completely subjective as the analyst uses his or her knowledge of history and current events to make prognostications. This method is fast, inexpensive and many times just as reliable as far more sophisticated approaches. But on the negative side, these forecasts can easily produce inconsistent outputs and they often suffer from biases of the individual forecaster. At the other extreme, large econometric models that require significant computer resources are another possibility. They have the advantage of producing consistent forecasts that minimize reporting bias. Unfortunately, their complexity makes them expensive to operate and difficult to interpret, and they produce forecasts that may be only marginally superior to alternative methods.

So with all of that, how did we generate the forecasts contained in this issue of the NEWSLETTER? Actually, we used a combination of both methods, with most of the emphasis being placed on the econometric approach. Although the actual operation of the model is quite complex, its approach is fairly straightforward. First, we have divided the state into three separate pieces--Maricopa County, Pima County, and the balance of the state. Within each of these three geographic areas, the industries have been analyzed to determine if the demand for their goods and services is from the local population or from external groups. For example, the demand for copper or semiconductor components comes mostly from consumers outside Arizona. These sectors we label as basic industries. Other industries, such as automotive repair, derive most of their demand from local residents. These sectors are called nonbasic industries.

The next step in the process involves the identification of variables that importantly contribute to employment changes in local industries. At this point the work is part science, part art. For the industries labeled basic, we look for variables at the national and international level that help to explain employment changes. In the copper industry, the world supply of copper, copper prices and the number of automobiles or homes constructed are fairly obvious candidates. Some of these variables work well, others do not. But after going through a statistical procedure known as multiple regression, one equation is selected to explain employment changes in the copper industry. After this has been done for all the basic industries (there are 59 of them), it is time to start estimating equations for the nonbasic industries.

Here we look for local forces like population, total employment and other such variables to help explain employment changes. Again, after a number of multiple regression equations are calculated, one equation is selected to explain a sector such as food stores. A final area covers those businesses that are both basic and nonbasic. Classic examples are eating and drinking establishments. Part of the demand for their services comes from local residents who are interested in eating out on occasion. That component would be labeled nonbasic. But part of their business is basic because they are providing meals to tourists who bring money from outside the state and spend it here. In these cases, the equations usually contain variables that are both local and national in scope.

After all these equations have been estimated, the job is still far from complete. All of these equations are placed in a computer program that actually performs the process. But before this can be done, the national and international variables that affect our basic industries must be forecast. These exogenous variables come from outside the model and obviously have an important impact. To the degree they are accurate, they should help make our local forecasts more accurate. Currently, we use the Control Solution generated by Data Resources, Inc. (DRI), a widely respected private forecasting company. With national variables such as gross national product, interest rates, housing starts, and the level of income being derived from DRI, our model derives the locally determined, endogenous variables. Up to this point, the process has been fairly mechanical. Except for the selection of variables to include in each equation, very little subjectivity has been involved. But before the forecasts can be accepted, the analyst must review them.

Some, we hope most, of the different equations will yield reasonable estimates. But the model is not totally knowledgeable. Certain events are outside the scope of the model because only a limited number of variables can be used. For example, we know that the Palo Verde Nuclear Power Plant is currently under construction, but at some point in the future the construction phase will be completed and the operation phase will begin. The analyst will likely have to take some control over the model, reducing construction at appropriate times by appropriate amounts and increasing utility employment appropriately. If the model has been constructed properly, this part, although very important, should not have to be performed often. And the employment changes in associated industries such as lumber, food stores and government will be handled by the model.

With all of this done, the forecasts are ready for presentation. It requires a lot of effort, in terms of both staff and computer resources, but our experience over the past few years has been very positive. We use the results not only for our semiannual employment forecasts, but also for occupational demand forecasts and occupational supply/demand forecasts. It has become an integral part of Labor Market Information. Each year we take each equation, all 209 of them, and re-estimate. It's a credit to those who have worked on the model before that very little is changed from year to year.

In addition to these forecasts, the model is also used to investigate alternative scenarios about Arizona's economy. Such questions as the impact of a continued national recession or a significant drop in interest rates can all be analyzed with the help of the model. It gives us a structure around which economic questions can be analyzed. While accuracy is quite important, the model also gives us a framework to better understand how our economy has developed and what impact we can expect from particular changes.

	1983 PRE-BENCHMARK	1983 FORECAST	1983 POST-BENCHMARK	PRE - POST DIFFERENCE		FORECAST-POST DIFFERENCE	
				Number	Percent	Number	Percent
ARIZONA							
Wage & Salary	1045.0	1043.4	1064.4	19.4	1.9	21.0	2.0
Manufacturing	152.6	154.7	155.7	3.1	2.0	1.0	0.6
Mining	15.5	16.4	14.2	(1.3)	(8.4)	(2.2)	(15.5)
Construction	72.4	68.2	76.4	4.0	5.5	8.2	10.7
T.C.P.U.	55.4	57.1	56.0	0.6	1.1	(1.1)	(2.0)
Trade	257.0	256.7	257.3	0.3	0.1	0.6	0.2
F.I.R.E.	62.7	60.7	65.4	2.7	4.3	4.7	7.2
Services	226.8	224.4	237.4	10.6	4.7	13.0	5.5
Government	202.8	205.2	202.1	(0.7)	(0.3)	(3.1)	(1.5)
MARICOPA							
Wage & Salary	666.7	663.8	686.8	20.1	3.0	23.0	3.3
Manufacturing	109.6	111.1	112.2	2.6	2.4	1.1	1.0
Mining	0.6	0.6	0.6	0.0	0.0	0.0	0.0
Construction	49.2	46.1	53.2	4.0	8.1	7.1	13.3
T.C.P.U.	34.9	35.9	35.8	0.9	2.6	(0.1)	(0.3)
Trade	171.5	171.3	173.9	2.4	1.4	2.6	1.5
F.I.R.E.	48.4	47.3	51.1	2.7	5.6	3.8	7.4
Services	150.8	147.8	159.0	8.2	5.4	11.2	7.0
Government	101.6	103.7	101.0	(0.6)	(0.6)	(2.7)	(2.7)
PIMA							
Wage & Salary	195.0	195.1	196.7	1.7	0.9	1.6	0.8
Manufacturing	26.3	26.9	26.5	0.2	0.8	(0.4)	(1.5)
Mining	3.5	4.4	3.6	0.1	2.9	(0.8)	(22.2)
Construction	14.1	12.6	14.7	0.6	4.3	2.1	14.3
T.C.P.U.	8.6	9.1	8.5	(0.1)	(1.2)	(0.6)	(7.1)
Trade	43.3	44.2	43.0	(0.3)	(0.7)	(1.2)	(2.8)
F.I.R.E.	9.2	8.6	9.2	0.0	0.0	0.6	6.5
Services	44.6	43.8	45.8	0.8	1.8	2.0	4.4
Government	45.5	45.5	45.4	(0.1)	(0.2)	(0.1)	(0.2)

NEW DEVELOPMENTS

Construction - A project to build 580 residential units atop Flagstaff's McMillan Mesa has been proposed by a California group. Plans for the 134-acre development also include commercial and recreation areas.

Planning for AgroCenter Arizona, a $25 million project combining urban development with agriculture, is under way in Eloy. When eventually completed, the project will feature urban residences, a county inn, and recreational attractions in a 1,000-acre core area. Surrounding the core area will be an arid lands research project. About 4,000 acres will be divided into 80-acre "farmettes."

Construction has begun on Star Distribution Corp.'s $1.7 million distribution center at Williams Field Road Business Park in Chandler. The 70,000 square-foot structure is the first building in the 65-acre Chandler park.

Plans have been announced for a 46-story, $47 million apartment building in downtown Phoenix. The 694-foot high-rise, planned for the southeastern corner of Fillmore Street and Second Avenue, would be the city's tallest building and the first major residential construction project in the downtown area in many years. The developer is seeking $42.4 million in tax-exempt bonds to help finance the project.

Printing - Gannett Co. Inc., the Rochester, N.Y.-based media giant and publisher of the one-year-old USA Today newspaper, is planning to build a printing plant in Chandler. The company has purchased a site on Williams Field Road near Interstate 10 to construct the facility. It is estimated that the plant will have a staff of 131 employees.

Hotels - A $4.6 million urban development single construction project in Arizona, has been approved for a $20 million resort complex to be built in El Mirage. The grant, to be made to the city, will fund a loan to be made to the developers to encourage them to build the project in El Mirage.

Construction has begun on the 272-room Fiesta Hilton Hotel in Mesa. When completed in December 1984, it will be the largest hotel in the East Valley.

Lumber - The Evergreen Lumber Co. has begun operations on a year-round basis at its Williams facility due to the addition of lumber-drying equipment which permits the plant to remain open instead of routinely closing during the winter.

The modifications will increase output from the current 12 million board-feet per year to about 30 million. When a second shift is added early this summer, the company expects to hire an additional 55 employees.

Manufacturing - GTE Corp. has announced that it will move the world headquarters of its Communications Systems division to Phoenix from Stamford, Connecticut, and expand its research operations in the Valley. The move will involve relocating about 70 executives to Phoenix and hiring about 160 engineers and technical employees locally by the end of 1984.

The division to be relocated has 29,000 employees worldwide and makes and services systems and equipment for voice, data and video telecommunications. GTE presently employs 600 workers at its Network Systems division in Phoenix and 400 at its Microcircuits operation in Tempe. Both operations are part of the $2.5 billion division that is relocating.

Intel's Chandler plant expects to hire 600 to 800 workers, mostly in engineering and technical-professional fields, during the next 18 months as part of a major expansion of its Chandler operations. Much of the growth will be due to the firm's $35 million expansion, which includes transferring its components assembly test operations to Chandler from Intel's headquarters in Santa Clara, California. About 200 employees will transfer from Santa Clara to Chandler by June.

AiResearch Manufacturing Co. has leased a large building at Tucson International Airport and will have up to 500 employees in Tucson by the end of 1984. The firm, a division of the Garrett Corp., has announced that engineers, electronics assemblers, technicians, salesmen, purchasing agents and clerks will be hired this year. The company estimates that it will have 4,000 Tucson employees within a decade.

AiResearch plans to begin building its own plant in Northwest Tucson this spring. The company will manufacture electronic components for the aerospace industry.

High Tech Report Available - A recently completed survey of 24 Arizona companies that together represent over 75 percent of the state's high tech employment reveals that these Arizona firms spent almost a $1 billion on key production items in 1982, with more than $820 million purchased from out-of-state suppliers. The survey is an updated and expanded report of the 1981 market study by the Arizona Office of Economic Planning and Development which examined where Arizona's high technology manufacturers purchase their supplies.

Copies of the report are available by writing to Barbara Orr at OEPAD, 1700 W. Washington Street, Phoenix, Arizona 85007.

Automobiles - The Ford Motor Co. will begin construction this month of a $500 million assembly plant in Hermosillo, using Mexican labor to assemble a Japanese-designed car for sale principally in the U.S. When production begins in three years, most of the cars will be shipped to the U.S. by train, probably through El Centro, California. Southern Arizona's retail sector, especially, should benefit from the 3,000-worker plant. Additional economic consequences are as yet unclear.

Tribal Economic Development - The Navajo Tribe is considering developing a resort and marina on the shores of Lake Powell that could cost about $19 million. The site under consideration is Antelope Point, about five miles from Page, where the tribe owns a lengthy section of land near the shoreline. Discussions have begun with the U.S. Park Service, which controls the shoreline itself, and planning is expected to take about one year.

The tribe has indicated that it probably would contract for the operation of the resort. Among the groups that has expressed an interest is the Del E. Webb Corp., which operates all the marinas on the lake.

The University of Arizona has been awarded a $651,000 grant to help Indians develop economic self-sufficiency. The three-year grant, awarded by the W.W. Kellogg Foundation, is aimed at assisting Indians in Arizona, Nevada, New Mexico and California in a number of areas, including building projects for business and growing of the oil-producing plant jojoba.

Hiring Incentive - A program to divert to an employer the cash welfare grant of an Aid to Families with Dependent Children (AFDC) recipient was begun by the Department of Economic Security on March 1st. Called "The Right Change," the program provides to the employer of an AFDC recipient a cash incentive for a period of six months. DES is conducting the program under a three-year federal grant and has targeted 750 job placements during the first year of operation.

For more information, contact Gloria Young, Project Director, at 255-4494.

Job Workshop - A free job search workshop intended to help displaced homemakers develop the skills required to find employment will be held in Tucson April 2 through 13 by PHASE (Project for Homemakers in Arizona Seeking Employment). Advance registration is required. To register, call 621-5008 or 621-3902.

Technology Center - The Greenlee County Technology Center opened in late January. The Center was cooperatively developed by Clifton Unified Schools and the Greenlee County Job Training Partnership Act to provide training in new fields of technology for JTPA participants and other interested persons and to promote the economic development of Greenlee County.

The Technology Center offers course clusters in computers in business, computers in science, computers in industry and secretarial and clerical.

Union Contracts - Plumbers represented by the 1,900-member Plumbers and Pipefitters Local 469 have agreed to large pay cuts to meet competition from non-union contractors. The contract, which runs through June 30, 1985, covers union plumbers in the Phoenix area and most of the northern part of the state. The new wage for industrial and commercial work is $15 an hour, down from $19.84, a 24 percent cut. For residential work, the rate drops to $12.50 an hour from $19.84, a 37 percent decrease.

For the first time since 1978, pay raises for union workers lagged behind those for non-union workers according to a study by the U.S. Bureau of Labor Statistics. The BLS report found that wages and salaries paid to workers covered by union contracts advanced 4.6 percent in 1983, while the gain for non-union workers was 5.2 percent.

Earlier, the BLS announced that the three million workers whose wages were negotiated by unions in 1983 accepted first-year pay boosts averaging 2.6 percent, the lowest settlements in the 16 years that the government has kept these records.

State Retirement - According to the Arizona State Retirement System, an unpredictably large number of people took advantage of an incentive program for early retirement last year. Of the 14,700 government workers eligible for early retirement during 1983, 17 percent took advantage of the higher benefits. Similar plans in other states have been utilized by about 10 percent of the eligible employees. City and county workers made up 38 percent of the early retirees, teachers 34 percent and state workers 28 percent.

Unemployment Insurance - Unemployment tax rates for about 59,000 Arizona businesses will increase an average of 70 percent this year. The average rate employers will pay into the fund will rise to 1.88 percent from 1.05 percent of the first $7,000 earned by a worker. The increases will produce a total of $124 million in 1984 instead of the $66 million that would have been collected under the old tax rates. The increases will help replenish the unemployment-insurance fund, which paid out a record $170 million in 1982 and $132 million last year.

Employers will feel the increase in April when the first quarter of 1984 ends and they are asked to pay into the unemployment-insurance fund.

Mine Closes - The Cyprus Bagdad Copper Mine closed indefinitely on February 11th, idling 550 workers. About 150 employees will continue to work at the mine, producing copper cathodes and providing security and maintenance.

The shutdown puts employment of copper miners in Arizona at 12,050, lower than it has been in 25 years, excluding periods when many workers in the industry were on strike.

Layoffs - Levy's department store has laid off about 25 employees due to a transfer of certain functions from its Tucson warehouse to a distribution center in Dallas. Affected employees will receive a month's pay plus an average of 11 to 12 weeks' severance pay.

Pacific Motor Trucking Co. has eliminated its division which handled freight weighing less than 10,000 pounds. The cutback affected some 16 employees in Tucson and 13 in Phoenix. The division lost at least $12 million in 1983.

Strike Update - No progress has been reported in the months-long stalemate between the Phelps Dodge Corp. and 13 striking unions. Reinstatement of seniority and cost-of-living adjustments for copper miners appear to be the major issues delaying an agreement. In attempts to break the deadlock, Governor Babbitt met last month with Frank McKee, international treasurer of the United Steelworkers of America, and with Kay McMurray, chief of the federal Mediation and Conciliation Service. In his meeting with McMurray, Babbitt suggested that the strike negotiations be moved to Washington in hopes of breaking the stalemate.

ARIZONA LEGISLATIVE UPDATE: PROPOSED LEGISLATION

In the current session of the Arizona Legislature, the following measures have been introduced which may be of interest to our readers:

SB 1010 - Would repeal the Little Davis-Bacon Act which requires payment of prevailing wages for public construction projects. This usually means that union salary schedules must be met (Hill, R-Tucson).

SCR 1001 - The companion resolution to SB 1010 that would submit the repeal of Little Davis-Bacon to the voters on the November general election ballot (Hill, R-Tucson).

SB 1122 - Would provide a tax deduction for those who serve as law enforcement volunteers (DeLong, R-Tucson).

SB 1163 - Families who place children in child care due to employment would receive state income tax break (Hill, R-Tucson).

SB 1175 - Another version of SB 1163 (DeLong, R-Tucson).

HB 2308 - Would allow the state attorney general to enforce Arizona's right-to-work law. The measure consists of a series of statutes, ranging from a provision that precludes any person from having to join a labor union in order to work to various laws regarding picketing (Skelly, R-Scottsdale).

HB 2310 - The companion measure to HB 2308 that would stiffen the penalties for illegal picketing and provide for a 1-1/2-year prison term for using force while picketing (Skelly, R-Scottsdale).

SCR 1012 - Constitutional amendment accompanying a senate bill. This would place into the Arizona Constitution a prohibition on public employee strikes and would strip a striking employee of his job seniority and all benefits. The person could be rehired, but only at a lower pay grade. This measure is similar to the strike ban endorsed by Phoenix voters in a city election last November. If passed by both the Senate and House, the proposed amendment would go to voters on the November general election ballot (Mawhinney, R-Tucson).

HCR 2013 - Similar to SCR 1012, the person could not be hired again by any government agency for a year (Skelly, R-Scottsdale).

HB 2006 - If approved, would give tax breaks to businesses that hire displaced homemakers (Herstam, R-Phoenix).

SB 1004 - Persons over 65 would be allowed to deduct $2,500 from their retirement benefits (excluding Social Security) before computing state taxes. Pensions of state employees and elected officials retiring after January 1, 1984 would be subject to state tax after the $2,500 deduction. Such retirement income is presently exempt (Hill, R-Tucson).

SB 1031 - Teachers who work more than 40 percent of the school year would be permitted to continue as tenured employees of the district, thereby facilitating job-sharing arrangements (Harelson, R-Tempe).

HB 2468 - Would instruct the Arizona Department of Administration to set salaries for state employees and officers based on a factor related to the average income of a family of four in the U. S. (Kromko, D-Tucson).

HB 2448 - If approved, would require the Department of Health Services to instruct group insurance providers to work with businesses and employees toward establishing preventive programs and health "workshops" in an attempt to improve employee health and cut health insurance costs (Resnick, D-Tucson).

HB 2058 - Would provide for State Board of Directors of Community Colleges to allocate and use start-up monies for needed vocational and technical education at community colleges and would allow for district-to district moving of state-purchased equipment. If training is for new, emerging or expanding occupations, state monies would have to be matched by industry served by that occupation. An apropriation is provided (Cooper, R-Mesa).

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Arizona Labor Market NEWSLETTER
Arizona Department of Economic Security

Vol. VIII No. 4
April 1984

Unemployment Rate

Seasonally Adjusted
February*

ARIZONA	5.6%
Maricopa Co.	4.3%
Pima Co.	5.2%
UNITED STATES	7.8%

Consumer Price Index

National-January
1967 - Base Year

Wage Earner/Clerical Worker -	302.7
% Chg. Yr. Ago	3.6
All Urban -	305.2
% Chg. Yr. Ago	4.1

Phoenix-4th Qtr.
1977 - Base Year

All Urban -	174.1
% Chg. Yr. Ago	4.1

Producer Price Index

National-February*
1967 - Base Year

All Commodities-	308.8
% Chg. Yr. Ago	2.6
Finished Goods -	290.6
% Chg. Yr. Ago	2.3

* Preliminary

CHANGE: HOW IT'S AFFECTING HOSPITAL WORKERS

Have you taken a tour through a hospital lately? Did you notice the dozens of departments listed on the building directory, all staffed with highly specialized personnel? Or the computer terminals and the complex-looking machines scattered all around? New technology, new treatments, new expectations about health care are combining to produce dramatic changes.

One of the most fundamental of these changes is the fragmentation of health care occupations brought about by the enormous growth in technical knowledge. In the early 1900s, the only jobs common to all areas of health care were physicians, nurses and aides.* By 1965, the number of primary and alternate job titles had mushroomed to over 300.** According to the most recent information available, this number has more than doubled, to over 700 different job titles.***

Currently, about one-third of the hospital workers in Arizona are professional staff. Registered nurses (RNs) comprise the bulk of this group, about 72 percent. Service and clerical workers follow with, respectively, 23.5 and 18.1 percent of the employment. The next largest group is technical staff, which constitutes nearly 17 percent of hospital employees. Licensed practical nurses (LPNs) prevail in this category, comprising 35 percent of the group's employment. The remaining 8 percent of hospital employees are either managers and officers or maintenance and production workers.

While nurses are by far the most numerous hospital employees, their role in today's modern hospital has changed considerably. According to Janine Cyr, Coordinator of Professional Services for the Arizona Hospital Association, "The trend in nursing is towards specialization." Cyr foresees a declining demand in hospitals for LPNs "because of the trend toward all RNs for primary nursing staff" and she points to the increased responsibilities being assumed by registered nurses. "We are seeing a demand for RNs specializing in critical care and operating room procedures. There is an increasing need for RNs with the additional education and experience required to take on extended roles, such as nurse practitioner, midwife and clinical practitioner." Cyr goes on to add that, "Many times, in rural areas; a nurse practitioner or physician's assistant is solely responsible for patient care and treatment."

But even the role of the general RN is changing. David Gyongyos, Director of Human Resources at Scottsdale Memorial Hospital, states, "There is an increasing need for nursing staffs to be able to keep up with the monitoring devices and the kinds of technological changes that are used with treating patients. We currently employ eight RNs to train staff to work with changing technology and to maintain skills in the hospital." Like Scottsdale Memorial Hospital, most hospitals train their own nurses in the use of new equipment and procedures. When reviewing applications for job openings, however, preference is given to applicants who already have this technical experience.

Another familiar health care profession affected by specialization and the dramatic increase in knowledge is that of pharmacist. According to Ken Underwood, Personnel Director at Humana Hospital, "Clinical pharmacists are in very short supply. Clinical pharmacists are usually Doctorates of Pharmacy who actually work with the medical staff and the nurses in determining the proper medication for patients."

But the fastest growing and most rapidly changing area in a hospital is diagnostic imaging, or what was once known as radiology. As Ken Underwood observes, "There have been more advances in medical technology in this area in the past ten years than there have been in the past 100 years." Diagnostic imaging staffs have grown in both number and degree of specialization. Ultrasound, computerized tomography (CT), digital subtraction angiology (DSA) and nuclear medical resonance (NMR) are just a few of the areas of medical imaging in which technologists and technicians can choose to specialize. And it is changing all the time. Adds Phil Hanson, Personnel Director at Boswell Memorial Hospital, "X-ray was supplemented not long ago by the catscanner, which was a major breakthrough in that it uses minimal radiation. The catscanner is now being preempted by NMR, because it uses radio frequency rays instead of radiation to perform tests."

These advances in diagnostic imaging mean new equipment and new techniques. Staff members must be retrained, and the training has become more difficult and substantially more time-consuming. While there are numerous radiology programs offered by Arizona's universities, community colleges and proprietary schools, the changes are happening so fast that it is difficult for training institutions to keep up with the latest equipment and techniques. It is very hard, therefore, to find individuals who have the desired experience on this new equipment. While some training is provided by the vendors, it is up to the hospital to provide any additional training.

What this adds up to is a shortage of qualified diagnostic imaging technologists and technicians. However, this does not mean the job market is deluged with openings for these positions. Ken Underwood states, "When we get a new piece of equipment, we need a technician to operate it--or we may expand the department and look for qualified applicants to fill the new positions. Otherwise, these types of jobs do not have much turnover. Therefore, the demand is not constant."

Technology is producing many other changes in the hospital. In the surgical suite, ultrasonic devices and lasers enable the surgeon to perform "hands off" surgery. Programmable wheelchairs and robotic arms and legs are among the aides currently being developed to minimize post-surgical physical adjustments. Medical lab technologists and technicians no longer monitor a chemical reaction, but rather monitor an instrument that carries out the chemistry. "In the labs, there are a lot of microprocessors. This reduces the number of man hours required to perform lab tests and promotes efficiency," states Ken Underwood. Naturally, with all this new equipment, somebody better be around who knows how to repair it when it breaks down. Hence, the need for more biomedical technicians. As the equipment becomes increasingly sophisticated, it becomes more complex to repair. In addition to these biomedical technicians, the rapidly growing usage of microprocessors in all departments is creating a growing demand for electronic technicians who can repair these machines.

It seems that technology has begun to affect nearly every job in the hospital. According to Mike Snyder, Employment Coordinator for St. Joseph's Hospital and Medical Center, "It's getting to the point where about every job in the hospital requires the use of the CRT, so typing skills are important for nearly all applicants." Nor are management personnel immune. Dr. Everett L. Taylor, Vice President for Human Resources at Combined Health Resources, says, "Our Management Information System (MIS), that will be implemented in different phases during the next three years, will mean significant changes throughout our hospital system. While MIS creates more efficiency in the hospitals, it also means management requirements will become even greater because we are creating more distance with technology. Whereas technical skills had previously been the criteria for advancement to the managerial level, the focus will now turn to professionalism and management techniques."

What about the jobs that all this new technology has changed? "Hospitals are taking the personnel they have and expanding their knowledge to cope with the new technology. Technology is creating new jobs rather than eliminating jobs," states David Gyongyos. For example, an X-ray technician may, with some additional training, become a DSA technician, a catscanner technician, or any number of other specialty diagnostic imaging technicians. Nevertheless, some jobs are becoming less significant to the operation of a hospital. "Nursing assistants are no longer as critical as they once were in hospitals because of the emergence of skilled care and the complexity of today's hospitals," notes Phil Hanson.

The future holds a kaleidoscope of changes to come in hospital technology. Needless to say, the effects on jobs will be even more dramatic than in the past. Mike Snyder believes that, "As medical and technical sciences advance, so do your occupations." Greater computerization will be the future area for much of the technological advancements. In addition, David Gyongyos predicts, "The growth of new methods of surgery through the use of laser and fiber optics will mean significant technological advances in health care." He adds, "As we are able to more minutely address the needs of the human body, the technology that is attendant will become more and more refined."

Aside from technology, new and updated methods of medical treatment, along with an increased public demand, have created the need for a multitude of other health care specialists. "Rehabilitative medicine," according to Ken Underwood, "is a very rapidly growing area in hospitals. This includes speech, occupational, respiratory and physical therapy." Rehabilitative medicine will grow even faster because of the trend from inpatient to outpatient care. The increase in the number of patients using these services will create even more of a demand for these specialists.

Physical therapists, especially, seem to be in very high demand throughout Arizona. Janine Cyr voices the concern of many hospital administrators: "Physical therapists are in desperate need. The only physical therapy program in Arizona is at Northern

Arizona University which is a four-year studies, one-year internship program. Unfortunately, many students go to hospitals out of state for their internship, and take jobs there after graduating. We lose a lot of physical therapists this way. To make matters even worse, a law was recently passed in Arizona permitting physical therapists to practice without a physician's order. This will cause additional shortages because of the number that will go into private practice rather than working in a hospital."

"Home health care is another area that will be experiencing very rapid growth," according to Niki O'Keeffe, Assistant Director of Employee Relations at St. Luke's Medical Center. Home health care involves providing health care in the patients' homes. "This includes health promotion and rehabilitation," O'Keeffe adds. Home health aides provide daily routine personal care while RNs provide some of the health care that may be needed by the homebound patients.

Another important area of change in the health care field is the increasing concern about costs. As hospitals strive to keep health care costs down, and with the advent of prospective (preset) payments, Dr. Everett Taylor foresees, "a rapid growth in business support areas, such as in the inventory order departments, or any area where an inventory needs to be kept. These areas will need sharp, educated and well-trained people." Janine Cyr also sees a bright future for "anyone with a background in computers and finance within the hospital field." She points out that prospective payments will intensify the existing shortage of medical records technicians because medical records will have to be closely scrutinized. "It will be increasingly important for all hospital employees to be credentialed. This means they have the state-of-the-art education and experience. Hospitals are going to make sure they get the most out of their manpower."

There have been monumental strides made in health care technology during the past decade. Specialized hospital personnel are becoming commonplace. New jobs have been created and old jobs have changed. There are even more changes in health care technology and treatments on the horizon, promising even greater challenges and increased job opportunities for hospital workers.

Donna Poggensee

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*Harold M. Goldstein and Morris A. Horowitz, Health Personnel: Meeting the Explosive Demand for Medical Care (Aspen Systems Corporation), 1977.

**U.S. Department of Health, Education and Welfare, Health Resource Statistics, 1965.

***U.S. Department of Health, Education and Welfare, Health Resource Statistics, 1976-1977.

ARIZONA UNEMPLOYMENT INSURANCE ACTIVITIES - JANUARY

	1984	1983	1983	% Change Year Ago
Arizona Claimants Served**	33,168	36,714	74,624	-55.6%
Arizona Average Weeks Unemployed***	9.7	9.8	INA	INA
Arizona Benefits Paid**	$ 9,882,100	$ 12,165,136	$ 22,402,885	-55.9%
Arizona Trust Fund Balance	$163,587,294	$165,815,096	$199,188,086	-17.9%

*Estimated **All Programs ***UI Only

JTPA 1984-85 FINAL ALLOCATIONS

Final 1984-85 Job Training Partnership Act allocations have been released by the Department of Labor for Arizona. The state will receive $24,071,745 during the program year 1985 beginning July 1, 1984 and ending June 30, 1985. Of the funds available, 78 percent, or $18,775,961, will be distributed directly to the eleven Service Delivery Areas (SDAs) in the state. Three percent of the funds, or $722,152, will be targeted toward workers 55 years old and over. Eight percent, or $1,925,740, will be targeted toward education grants. Six percent, or $1,444,305, will be used to provide incentive grants and technical assistance to the SDAs. The remaining 5 percent, or $1,203,587, will be used for administrative costs associated with the program.

The table below provides a comparison of the 1984 and 1985 final allocations. Since the allocations were for a nine-month period, they have been annualized to facilitate comparison.

Nearly all of the SDAs will receive an increase in funding. However, there are a few exceptions. The dramatic swing of allocated amounts in some areas is due primarily to the fact that each year the base data of the funding formula are updated.

Each Service Delivery Area is allocated funds according to a formula contained in the Act. The formula consists of three equal elements: 1) the number of people in an "Area of Substantial Unemployment" (ASU); 2) the number of people who are excess unemployed over 4.5 percent, and 3) the number of people who are considered to be economically disadvantaged as determined by the Bureau of the Census.

The JTPA system in Arizona is now fully operational. All eleven Service Delivery Areas are currently operating employment and training programs. At a recent meeting of the State Job Training Coordinating Council, most of the SDAs submitted their two-year job training plans for the program years 1984-85 and 1985-86. These plans are available for review by calling JTPA administration at (602) 255-3957.

Jeffrey D. Bowman

	1983-84 JTPA FUNDS ANNUALIZED	1984-85 JTPA FUNDS TOTAL	PERCENT CHANGE
Phoenix	$ 4,289,664	$ 4,567,867	6.5
Balance of Maricopa	3,092,620	3,325,154	7.5
Pima	2,880,352	3,365,660	16.8
Sixco	1,769,456	1,888,818	6.7
Yuma	755,954	1,012,868	34.0
Santa Cruz	236,358	366,874	55.2
Gila-Pinal	944,890	1,331,465	40.9
Greenlee	250,613	41,153	-83.6
Cochise	507,624	615,422	21.2
Graham	192,900	269,589	39.8
All Reservation	2,142,692	1,991,091	-7.1
Arizona (Total)	$ 17,063,122	$ 18,775,961	

NOTE: 1983-84 nine-month allocations were annualized by dividing the nine-month allocation by nine and multiplying the result by twelve.

WHERE WE LIVE, WHERE WE WORK AND WHAT WE EARN

If you live in the Phoenix metropolitan area, or have traveled through it during rush hour, you have undoubtedly encountered droves of motorists, especially on the freeways. At times, it seems that the entire work force commutes to Phoenix in the morning and heads for the suburbs at night. In actuality, you may not be too far off; however, there are variations.

A study of employment by place of work in Maricopa County from the Arizona Employer Establishment Information System (AEEIS) has revealed some interesting work force characteristics. For example, the wage and salary work force of Phoenix numbers approximately 450,000, about one-half the city's population. In contrast, the wage and salary work force of Mesa is approximately one-fourth the size of its population. Although it is not possible with AEEIS data to determine where each resident works and lives individually, it is obvious that many Mesa residents commute to a Phoenix work place.

AEEIS provides a data base for employment statistics collected at the sub-county level of analysis. Employment data may be broken down by geographic area including city, zip code, census tract (county census division for non-metropolitan counties) and traffic analysis zone (TAZ). AEEIS data have been structured in such a way that they can be compared to 1980 Census data; AEEIS data reflect the situation as of April 1, 1980. There is, however, one major difference between AEEIS and the 1980 Census. AEEIS estimates total wage and salary employment by place of work while the Census estimates total employment by place of residence. AEEIS also estimates the number of business establishments by geographic area.

In order to estimate wage and salary employment by place of work, data had to be gathered for each branch of each firm. A firm is defined as "the company as a whole" while establishment is defined as "a branch of the firm." A single firm can have many establishments in many geographic areas (e.g., McDonald's restaurants). Each establishment was assigned the appropriate geographic code, Standard Industrial Classification (SIC) code, estimated wage and salary employment and unique branch number. The file for Maricopa County alone totals approximately 36,000 records.

The procedure is a very time-consuming task, requiring numerous man-hours for data collection. At the present time, data are available for Maricopa County and some nonmetropolitan counties (e.g., Apache, Coconino, Santa Cruz). Data collection is proceeding for the remaining nonmetropolitan counties and should be available within a few months. Data collection for Pima County has just begun. AEEIS will eventually provide coverage of all establishments in Arizona (approximately 75,000). However, data on any particular company cannot be disclosed.

Table 1 illustrates estimated total wage and salary establishments and employment, population, and median family income for selected cities within Maricopa County during 1983. From Table 1, comparisons can be drawn between different areas of the county. For example, average establishment size tends to increase as city population size increases. However, a larger average establishment size is found in Tempe because it contains a major state university. The developing communities of Chandler, Gilbert and Peoria will probably follow the work force patterns of other suburban communities more closely when support services and population size increase. Sun City, a retirement community, supports a special population and is able to concentrate services in particular areas.

Most of the employment in Maricopa County exists in Phoenix. In fact, over 60 percent of wage and salary employment is in Phoenix. Scottsdale, Mesa and Tempe, established East Valley communities, have similar size work forces, although Scottsdale supports a smaller population. The work force of Glendale, a West Valley community, is still growing and is expected to support more small business in the future. The developing communities of Chandler, Gilbert and Peoria support relatively smaller work forces. These developing communities also have the lowest ratio of work force size to population size.

Median family income also varies across cities located within the Phoenix metropolitan area. Scottsdale residents have the highest median family income, followed, in descending order, by Tempe, Glendale, Phoenix, Mesa, Chandler, Gilbert and Peoria.

It should be noted that small business is still abundant in Maricopa County. Approximately 75 percent of the business establishments in the Phoenix metropolitan area (Maricopa County) employ 10 employees or fewer. In fact, about 50 percent employ fewer than 5 employees.

A former trend throughout the United States has been to live in the suburbs and work in the metropolis and in Phoenix, that trend continues. Like it or not, most of us will find employment in the metropolis, while we continue to reside in the suburbs.

Guy R. Wilson

TOTAL WAGE AND SALARY ESTABLISHMENTS AND EMPLOYMENT, POPULATION, AND MEDIAN FAMILY INCOME BY CITY IN THE PHOENIX METROPOLITAN AREA ESTIMATED FOR 1983 (PRELIMINARY)

	TOTAL WAGE & SALARY ESTABLISHMENTS AND EMPLOYMENT*				
	ESTABLISHMENTS	EMPLOYMENT	AVG. SIZE	POPULATION**	MEDIAN FAMILY INCOME***
Phoenix	26,987	446,752	16.6	841,200	26,078
Scottsdale	4,552	52,406	11.5	101,500	33,493
Mesa	3,870	51,002	13.2	177,000	26,055
Tempe	2,920	49,848	17.1	132,200	30,445
Glendale	2,043	25,546	12.5	108,150	27,167
Chandler	722	10,569	14.6	41,360	24,678
Sun City	598	9,417	15.7	NA	NA
Peoria	391	4,243	10.9	19,800	21,580
Gilbert	148	1,548	10.5	7,290	23,980
MARICOPA COUNTY (TOTAL)	43,893	686,700	15.6	1,633,100	26,223

NA = Not Available

* Adjusted to Current Employment Statistics (CES)--1983 Annual Average, 1/84. SOURCE: Arizona Department of Economic Security, Labor Market Information, AEEIS (1980).

** SOURCE: Arizona Department of Economic Security, Population Statistics Unit, February 1984.

***SOURCE: Arizona Department of Economic Security, Population Statistics Unit, December 1983.

Arizona Labor Force and Employment

February 1984 (in thousands)

	ARIZONA				
				-- Amt Change --	
	Feb.* 1984	Jan. 1984	Feb. 1983	Jan. to Feb.	1983 to 1984
TOTAL CIVILIAN LABOR FORCE	1403.6	1400.1	1365.5	+3.5	+38.1
Total Unemployment	79.8	87.6	148.3	-7.8	-68.5
Rate	5.7	6.3	10.9	---	---
Rate (Sea. Adj.)**	5.6	6.1	10.8	---	---
Total Employment	1323.8	1312.5	1217.2	+11.3	+106.6

THE ABOVE LABOR FORCE STATISTICS SHOULD NOT BE

NONAGRICULTURAL WAGE AND SALARY EMPLOYMENT BY PLACE OF WORK

	Feb.* 1984	Jan. 1984	Feb. 1983	Jan. to Feb.	1983 to 1984
TOTAL WAGE AND SALARY	1117.5	1101.6	1040.0	+15.9	+77.5
Manufacturing	162.6	162.1	149.5	+0.5	+13.1
Durable Goods	127.1	126.7	115.5	+0.4	+11.6
Stone, Clay and Glass	6.8	6.7	5.3	+0.1	+1.5
Primary and Fabricated Metals	14.5	14.4	14.2	+0.1	+0.3
Primary Metals	6.4	6.4	6.6	+0.0	-0.2
Fabricated Metals	8.1	8.0	7.6	+0.1	+0.5
Machinery	64.0	63.6	59.6	+0.4	+4.4
Other Durable Goods	41.8	42.0	36.4	-0.2	+5.4
Aircraft and Missiles	18.6	18.9	17.1	-0.3	+1.5
Lumber and Wood Products (Except Furniture)	6.7	6.8	5.5	-0.1	+1.2
All Other Durable Goods	16.5	16.3	13.8	+0.2	+2.7
Nondurable Goods	35.5	35.4	34.0	+0.1	+1.5
Food and Kindred Products	7.6	7.6	8.2	+0.0	-0.6
Apparel	5.5	5.5	5.1	+0.0	+0.4
Printing and Publishing	12.8	12.7	11.7	+0.1	+1.1
All Other Nondurable Goods	9.6	9.6	9.0	+0.0	+0.6
Mining and Quarrying	14.3	14.3	14.0	+0.0	+0.3
Copper Mining	11.4	11.4	11.1	+0.0	+0.3
Other Mining and Quarrying	2.9	2.9	2.9	+0.0	+0.0
Construction	82.6	82.0	66.9	+0.6	+15.7
Trans., Communications, and Public Utilities	58.5	57.8	56.2	+0.7	+2.3
Transportation	24.6	24.5	23.0	+0.1	+1.6
Communications and Public Utilities	33.9	33.3	33.2	+0.6	+0.7
Trade	268.7	267.6	251.2	+1.1	+17.5
Wholesale Trade	54.3	54.2	50.2	+0.1	+4.1
Retail Trade	214.4	213.4	201.0	+1.0	+13.4
General Merchandise and Apparel	36.4	36.9	35.6	-0.5	+0.8
Food Stores	33.9	33.9	33.0	+0.0	+0.9
Automotive and Service Stations	24.6	24.5	23.4	+0.1	+1.2
Eating and Drinking Places	76.0	74.8	69.3	+1.2	+6.7
Other Retail Trade	43.5	43.3	39.7	+0.2	+3.8
Finance, Insurance, and Real Estate	67.5	67.0	63.3	+0.5	+4.2
Services and Miscellaneous	251.3	248.7	230.9	+2.6	+20.4
Hotels and Other Lodging Places	26.7	25.7	24.8	+1.0	+1.9
Business Services	50.6	49.9	44.7	+0.7	+5.9
Health Services	66.8	66.3	63.0	+0.5	+3.8
Other Services	107.2	106.8	98.4	+0.4	+8.8
Government	212.0	202.1	208.0	+9.9	+4.0
Federal	39.2	39.0	37.6	+0.2	+1.6
State and Local	172.8	163.1	170.4	+9.7	+2.4
School	107.6	97.8	105.0	+9.8	+2.6

* Preliminary
** Normal seasonal variations have been eliminated to reflect underlying economic trends.
NOTE--Data have been adjusted to the 1972 Standard Industrial Classifications (SIC).

February 1984 (in thousands)

MARICOPA COUNTY					PIMA COUNTY				
			-- Amt Change --					-- Amt Change --	
Feb.* 1984	Jan. 1984	Feb. 1983	Jan. to Feb.	1983 to 1984	Feb.* 1984	Jan. 1984	Feb. 1983	Jan. to Feb.	1983 to 1984
884.1	880.2	837.7	+3.9	+46.4	260.2	260.4	255.1	-0.2	+5.1
38.5	43.1	71.1	-4.6	-32.6	13.7	15.2	28.8	-1.5	-15.1
4.4	4.9	8.5	---	---	5.3	5.8	11.3	---	---
4.3	4.8	8.5	---	---	5.2	5.8	11.2	---	---
845.6	837.1	766.6	+8.5	+79.0	246.5	245.2	226.3	+1.3	+20.2

USED FOR ECONOMIC ASSISTANCE PROGRAMS.

NONAGRICULTURAL WAGE AND SALARY EMPLOYMENT BY PLACE OF WORK

MARICOPA COUNTY					PIMA COUNTY				
727.4	716.8	667.5	+10.6	+59.9	206.3	203.7	192.4	+2.6	+13.9
117.7	117.3	107.8	+0.4	+9.9	27.6	27.5	25.5	+0.1	+2.1
92.9	92.5	84.7	+0.4	+8.2	22.9	22.8	20.8	+0.1	+2.1
4.1	4.1	3.2	+0.0	+0.9					
9.1	9.1	9.3	+0.0	-0.2					
51.2	50.8	47.1	+0.4	+4.1					
28.5	28.5	25.1	+0.0	+3.4					
24.8	24.8	23.1	+0.0	+1.7	4.7	4.7	4.7	+0.0	+0.0
5.1	5.2	5.7	-0.1	-0.6					
3.2	3.3	2.5	-0.1	+0.7					
9.5	9.4	8.6	+0.1	+0.9					
7.0	6.9	6.3	+0.1	+0.7					
0.6	0.6	0.6	+0.0	+0.0	3.6	3.6	3.4	+0.0	+0.2
57.6	57.2	46.9	+0.4	+10.7	16.7	16.6	12.1	+0.1	+4.6
37.7	37.6	35.5	+0.1	+2.2	8.9	8.8	8.7	+0.1	+0.2
16.5	16.4	15.1	+0.1	+1.4	3.9	3.8	3.6	+0.1	+0.3
21.2	21.2	20.4	+0.0	+0.8	5.0	5.0	5.1	+0.0	-0.1
182.9	182.0	169.6	+0.9	+13.3	44.1	44.0	41.8	+0.1	+2.3
42.6	42.4	39.3	+0.2	+3.3	6.4	6.5	5.7	-0.1	+0.7
140.3	139.6	130.3	+0.7	+10.0	37.7	37.5	36.1	+0.2	+1.6
23.0	23.7	23.0	-0.7	+0.0	7.0	6.9	6.3	+0.1	+0.7
21.9	21.8	21.1	+0.1	+0.8	5.4	5.4	5.5	+0.0	-0.1
15.8	15.7	14.7	+0.1	+1.1	4.0	4.0	3.9	+0.0	+0.1
49.2	48.2	44.2	+1.0	+5.0	13.8	13.7	13.3	+0.1	+0.5
30.4	30.2	27.3	+0.2	+3.1	7.5	7.5	7.1	+0.0	+0.4
52.8	52.4	49.6	+0.4	+3.2	9.5	9.5	8.6	+0.0	+0.9
171.4	169.0	154.2	+2.4	+17.2	47.5	47.2	45.0	+0.3	+2.5
16.3	15.7	15.2	+0.6	+1.1	4.6	4.3	4.2	+0.3	+0.4
42.0	41.3	36.8	+0.7	+5.2	7.1	7.0	6.3	+0.1	+0.8
45.3	44.7	41.8	+0.6	+3.5	13.7	13.8	13.7	-0.1	+0.0
67.9	67.3	60.4	+0.5	+7.5	22.1	22.1	20.8	+0.0	+1.3
106.7	100.7	103.3	+6.0	+3.4	48.4	46.5	47.3	+1.9	+1.1

-- Prepared by Labor Market Information, Research and Analysis (CPS-MOD, 1/84)

NONMETROPOLITAN COUNTIES LABOR FORCE AND EMPLOYMENT

February 1984 (Preliminary)

	Apache	Cochise	Coconino	Gila	Graham	Greenlee	La Paz
TOTAL CIVILIAN LABOR FORCE*.	14,350	28,575	33,925	14,125	7,475	3,900	4,700
Total Unemployment	1,925	2,400	2,775	2,025	750	275	650
Rate	13.4%	8.4%	8.2%	14.3%	10.0%	7.1%	13.8%
Rate (Seas. Adj.)**. . . .	12.7%	8.1%	7.5%	13.6%	9.7%	6.5%	-INA-
Total Employment	12,425	26,175	31,150	12,100	6,725	3,625	4,050

THE ABOVE LABOR FORCE STATISTICS SHOULD NOT BE USED
FOR ECONOMIC ASSISTANCE PROGRAMS

	Apache	Cochise	Coconino	Gila	Graham	Greenlee	La Paz
TOTAL WAGE AND SALARY. . . .	12,825	21,175	29,025	9,700	4,225	3,125	2,325
Manufacturing.	600	1,500	2,425	1,450	100	350	100
Mining and Quarrying	50	350	50	1,450	75	1,650	0
Construction	1,450	850	925	425	100	25	50
Trans., Comm., & Pub. Util..	1,600	1,275	2,600	275	150	50	50
Trade.	1,025	4,325	6,675	1,700	1,150	325	800
Fin., Insur., & Real Estate.	150	600	575	225	100	50	100
Services and Miscellaneous .	3,175	2,575	6,200	1,500	700	100	650
Government	4,775	9,700	9,575	2,675	1,850	575	575

	Mohave	Navajo	Pinal	Santa Cruz	Yavapai	Yuma
TOTAL CIVILIAN LABOR FORCE*.	21,775	24,675	30,550	8,600	31,300	35,325
Total Unemployment	2,525	2,925	3,625	1,150	2,525	3,925
Rate	11.6%	11.9%	11.9%	13.4%	8.1%	11.1%
Rate (Seas. Adj.)**. . . .	11.2%	11.0%	11.9%	15.5%	7.2%	-INA-
Total Employment	19,250	21,750	26,925	7,450	28,775	31,400

THE ABOVE LABOR FORCE STATISTICS SHOULD NOT BE USED
FOR ECONOMIC ASSISTANCE PROGRAMS

	Mohave	Navajo	Pinal	Santa Cruz	Yavapai	Yuma
TOTAL WAGE AND SALARY. . . .	14,650	16,850	22,675	7,425	17,150	22,675
Manufacturing.	2,075	1,650	2,625	875	1,950	1,725
Mining and Quarrying	250	1,075	4,050	25	1,025	50
Construction	825	550	525	200	925	1,400
Trans., Comm., & Pub. Util..	925	1,575	1,000	550	850	975
Trade.	4,100	2,925	3,800	3,150	4,400	7,375
Fin., Insur., & Real Estate.	700	275	700	225	700	725
Services and Miscellaneous .	2,700	4,450	2,150	1,050	3,100	4,050
Government	3,075	4,350	7,825	1,350	4,200	6,375

*Adjusted to the Current Population Survey (CPS) to reflect place of residence.
**Seasonal adjustment not applicable for economic assistance programs.

NOTE--Series for Yuma and La Paz counties start January 1983. Data are not comparable to any past series.

ARIZONA LABOR FORCE AND EMPLOYMENT FOR ECONOMIC ASSISTANCE PROGRAMS

January 1984 (Final)

County	Civilian Labor Force	Employment	Unemployment	Rate
Statewide	1,399,428	1,312,311	87,117	6.2%
Apache	14,604	12,486	2,118	14.5
Cochise	28,689	26,052	2,637	9.2
Coconino	32,938	29,687	3,251	9.9
Gila	14,347	12,089	2,258	15.7
Graham	7,651	6,799	852	11.1
Greenlee	3,919	3,633	286	7.3
La Paz	4,745	4,069	676	14.2
Maricopa	880,829	837,983	42,846	4.9
Mohave	21,728	19,005	2,723	12.5
Navajo	24,701	21,726	2,975	12.0
Pima	259,498	244,351	15,147	5.8
Pinal	30,909	26,887	4,022	13.0
Santa Cruz	8,799	7,430	1,369	15.6
Yavapai	30,959	28,572	2,387	7.7
Yuma	35,112	31,542	3,570	10.2

Data have been adjusted to the 1972 Standard Industrial Classification (SIC). These figures are the only official BLS labor statistics to be used for revenue sharing purposes. They are not designed to be used as economic indicators. Note: Series for Yuma and La Paz counties start January 1983. Data are not comparable to any past series.

ESTIMATED HOURS AND EARNINGS OF PRODUCTION WORKERS IN SELECTED INDUSTRIES IN ARIZONA

February 1984

INDUSTRY	AVERAGE WEEKLY EARNINGS			AVERAGE WEEKLY HOURS			AVG. HOURLY EARNINGS		
	FEB.* 1984	JAN. 1984	FEB. 1983	FEB.* 1984	JAN. 1984	FEB. 1983	FEB.* 1984	JAN. 1984	FEB. 1983
	----	----	----	----	----	----	----	----	----
FOR THE STATE OF ARIZONA*									
Manufacturing	372.81	373.01	347.38	40.7	40.9	39.7	9.16	9.12	8.75
Aircraft & Missiles	519.04	516.10	475.08	44.4	44.3	42.8	11.69	11.65	11.10
Food & Kindred Products	311.92	320.26	316.38	37.9	37.9	39.4	8.23	8.45	8.03
Primary Metals	472.92	482.26	456.87	38.2	39.4	38.2	12.38	12.24	11.96
Machinery	339.33	342.33	323.44	40.3	40.9	39.3	8.42	8.37	8.23
Copper Mining	522.38	555.36	489.94	39.1	41.6	37.4	13.36	13.35	13.10
Construction	412.62	417.09	457.10	36.1	36.3	35.6	11.43	11.49	12.84
Utilities	554.18	554.18	478.59	44.8	44.8	43.0	12.37	12.37	11.13
Retail Trade**	213.14	213.14	211.29	33.2	33.2	34.3	6.42	6.42	6.16
Wholesale Trade	344.25	344.25	323.85	40.5	40.5	38.6	8.50	8.50	8.39

* Preliminary

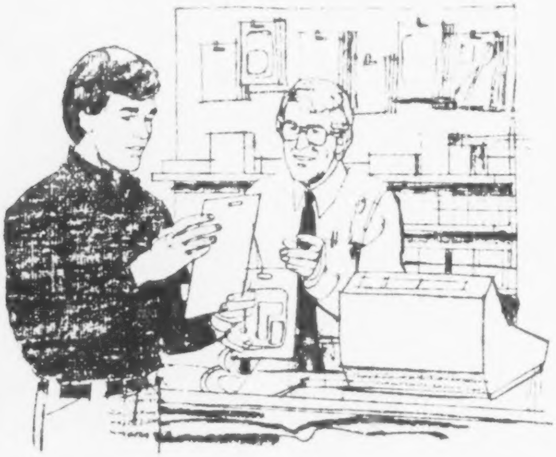
** Excludes eating and drinking places.

NOTE--These estimates are based on a sample of full and part-time production and related employees whose payroll and hours are reported for the pay period which includes the 12th of the month. All data have been adjusted to the 1972 Standard Industrial Classifications (SIC).

--Prepared by Labor Market Information, Research and Analysis (1972 SIC, 1/84)

THE ARIZONA LABOR FORCE IN FEBRUARY 1984

February continued the pattern of strong economic growth that the state has experienced during the last few months. Total jobs in the state hit a record high of 1,117,500 as Maricopa County, and to a lesser extent Pima County, continued to create employment opportunities. Except for mining, which was stable in February, every major industry showed an increase in employment. While the increases in government and services were principally the effect of usual seasonal activity, other areas such as construction and retail trade showed unusually strong growth.



A year ago, Arizona's unemployment rate was nearly a half a percentage point above the national rate. But in the last twelve months, economic improvement in the state's metropolitan areas has dropped Arizona's unemployment rate to over two full percentage points below the national average. This was caused principally by improvements in the services industry, followed by trade, construction and manufacturing as a total of 77,500 new jobs have been created. This 7.4 percent increase, while by no means a record, is a decided improvement over what has been happening over the last three years.

February statistics are a good example of what has been happening during the last few months. In the services industry, winter tourism business pushed employment up in the hotel/motel industry by 1,000. In addition, business services added 700 and health services added 500 new people. Meanwhile, retail trade's expansion was led by eating and drinking places as returning students and winter tourism helped to add more employment.

In the construction industry, January's slight dip in employment was corrected in February with the addition of 600 more workers. Maricopa County, with construction employment at 57,600, is near its record level of 58,400 recorded in July 1979. Unfortunately, interest rates, while they have been basically stable the last few months, appear poised to rise again soon. Nervousness over budget deficits and expanding activity have pushed both short-term and long-term rates up. While it is too soon to estimate the exact impact this will have, obviously residential construction will be hurt.

Finally, the manufacturing industry has continued to steadily add employment. Most of the improvement has been, and will likely continue to be, in Maricopa County. Generally, high-technology manufacturers in electronics and aerospace have added to their staffs. To a more limited extent, fabricated metals manufacturers and lumber companies will probably be strong in the months ahead.

While the employment news continues to be very good, problems still exist. First, within copper mining, recent layoff announcements will be translated into lost employment in the months ahead. And many other companies are cutting back on work, as the drop in average weekly hours from 41.6 to 39.1 in February shows. Apparently, the end of the decline in copper mining has not yet arrived. Second, job creation in the state's rural areas is slow. A year ago, 17.3 percent of the wage and salary jobs in the state were outside the metropolitan areas. That percentage has now fallen to 16.4 percent. Economic development, a key to recovery in many rural counties, is progressing quite slowly.

NEW DEVELOPMENTS

Construction - Business construction did not enjoy the same upsurge that residential housing did last year, but judging by figures for January, 1984 may be a better year. According to McGraw-Hill Information Systems Co., the value of business construction projects in Tucson during 1983 was $175.9 million, down about 25 percent from 1982's $226 million. In Phoenix, the amount invested was $680.8 million, down 8 percent from 1982's $737 million.

However, in January 1984, the value of business construction projects in Tucson was $14.7 million, up 24 percent over January 1983, and in Phoenix, business construction was valued at $64 million, up 44 percent over the preceding January.

Manufacturing - Microelectronic Packaging Inc., a newly formed Scottsdale electronics and sales firm, has acquired a manufacturing plant in Singapore and now is considering opening a similar plant in the Valley. The firm has completed the purchase of Coors Ceramics Asia-Pacific Private Ltd., which manufactures ceramic products for the semiconductor industry, and is now looking for a building in the Valley so it can establish a plant in which to research, develop and manufacture other products for the electronics industry.

Talley Industries of Arizona Inc. dedicated its $4 million expansion last month. The new facility, called Plant 4, is located at the company's manufacturing complex in northeastern Mesa. By year's end, Plant 4 will have about 35 to 40 employees engaged in the mixing, casting and curing of high energy, solid-propellant rocket motors used in small tactical missiles and ejection seats.

American Airlines has announced an order for 67 twin-engine McDonnell Douglas MD-80 jetlines--with options for 100 more--that could result in orders valued at more than $100 million for Valley firms. This figure includes more than $80 million to Sperry Flight Systems, about $17 million to the Garrett Turbine Engine Co. and $10 million to the Garrett Pneumatic Systems Division of the Garrett Corp.

Revco D.S. Inc. plans to build a $15 million facility in Glendale to manufacture human and veterinary injectable drugs. The new plant will house the operations of Carter-Glogau Laboratories Inc., a Revco subsidiary already in Glendale. Employment at the new 90,000-square-foot plant will be approximately 300 when the project is completed in mid-1985.

Motorola Inc. announced plans to move a 100-employee research lab from Mesa to Austin, Texas, as part of a consolidation of its operation in that state. The MOS Advanced Products Research and Development Laboratory, which has been in Mesa for 10 years, is being consolidated with MOS (Metal-Oxide Semiconductor) headquarters in Austin. According to a Motorola spokesman, the 100 employees are moving mainly because of a new 250,000 square-foot facility that was recently completed in Austin. No other moves away from the Valley are planned.

Austin was chosen last year over several sites (including Phoenix) for the headquarters of the Microelectronics and Computer Technology Corp., a consortium of major American electronics firms that includes Motorola.

Distribution Center Planned- Golden State Foods Corp., a California-based food-processing and distribution company for McDonald's restaurants, plans to build a 47,000-square-foot distribution center in Phoenix. The $2.5 million project will supply 140 McDonald's restaurants in Arizona and surrounding states with food, packaging and operating supplies. The facility, expected to be completed in the fall, will initially employ 40 people.

Photo-Finishing Plant - Berkey Photo Inc., a New York-based photo finisher, plans to open a plant in Phoenix by the end of April. The company expects to hire about 40 people and special skills will not be required. An additional 40 to 45 people will be hired within 18 months.

The plant will process and print film for Arizona, New Mexico and western Texas. Currently, Berkey has 18 plants in the U.S.

Automobile Sales - A national recruiting company has hired about 55 new-car salesmen and saleswomen for Chevrolet dealers in the Phoenix metropolitan area and other parts of the state. The campaign was part of a nationwide effort to hire 2,000 people for Chevrolet dealers across the nation in order to replenish staffs that had been depleted during the past three years when new-car sales were down sharply.

Gasoline Sales - Texaco Inc. has opened nine new gas stations that offer self-service pumps and convenience stores as part of its long-range plans to broaden its market share in Phoenix. According to a company spokesman, about 80 percent of the gas sold in the Valley comes from self-service pumps.

Meanwhile, the Shell Oil Company has begun phasing out its Phoenix and Tucson service stations and plans to concentrate instead on supplying other companies with gasoline.

Restaurants - Carvel recently opened an ice cream store in Tempe, the first of 50 stores the company intends to open across the state within five years. About 35 of these stores will be located in the Phoenix area.

Mining - Inspiration Copper Company has laid off 95 workers at its Globe smelter operation and is considering additional layoffs later because of the poor copper market and low price. Sixty of the workers were released when the company decided to go from three converters to two because of the lack of concentrates.

The Cypress Bagdad Copper Company's closure on February 11th will result in an estimated annual loss to Prescott of $157,860 in sales tax revenues, or 2.9 percent of the city's annual revenues. Yavapai County officials are unable to predict losses until May, when the Arizona Department of Revenue determines the mine's property tax status. However, Yavapai County Manager Jim Holst estimates that in the worst case, the county could lose approximately $500,000 between severance and property taxes, or three to four percent of the county's general fund.

Education - A 10-year, $148 million capital-improvement and expansion program, including education centers in the Chandler-Gilbert area, Paradise Valley and Litchfield Park, is being considered by the Maricopa County Community College District. The program is an update of the district's master plan, developed in 1978. Partial financing would come from a bond election, tentatively planned for September. Additional sources are also being considered.

The plan calls for building education centers instead of free-standing colleges in order to keep administrative costs down. According to District Chancellor Paul Elsner, "They will be put on good-sized sites so if enrollment justifies it, they can become full-sized campuses."

Federal Retraining Bill Proposed - Under a plan drafted by a congressional task force, the federal government would establish a voluntary job retraining program, with employers and workers each contributing up to $250 a year. Contributions would stop when $4,000 was accumulated. Laid-off workers would draw on the full amount after a six-month resting period and could use up to $1,000 for costs of relocating.

Under the plan, employers would receive tax deductions amounting to 125 percent of their contributions, and no longer would have to pay a small surtax now required for federal unemployment insurance. Contributions would be invested in high-yield Treasury securities and administered like Individual Retirement Accounts by the unemployment insurance system. Representative Sherwood Boehlert, R-N.Y. chaired the task force which drafted the plan.

Jobs Seminar for Hispanic Youth - The College of Business Administration at Arizona State University will sponsor a weeklong seminar June 3-9 to explain career opportunities for Hispanic high school students. The seminar will be open to 80 high school sophomores who plan to study business in college.

Program for Employers of Handicapped - Goodwill Industries of Tucson has received a grant to purchase an instructional program that shows companies how to adjust to newly-hired handicapped workers. The program, known as the "Windmills Program," was developed by the California Governor's Committee for Employment of the Handicapped and consists of 12 half-hour audio-visual training sessions. Goodwill will offer the program to employers, managers, supervisors and any other business personnel.

Layoffs - Kroy Inc., a Scottsdale-based graphics-products company, laid off about 60 contract employees. A company spokesman said that the employees had been brought in for a specific project and that additional layoffs of this magnitude are not expected.

Amstar Corporation's Spreckles Sugar Division has announced the closure of its Chandler operation. Employees to be laid off include supervisory personnel, technicians and mechanics.

Litton Industries Inc.'s electron-tube division in Tempe has laid off 40 workers because of poor orders for its products. The length of the layoff is indefinite and leaves the plant with slightly more than 300 workers. No additional layoffs are expected. The firm manufactures night-vision devices for defense and commercial use.

Strike Update - A strike called February 22nd by the United Mine Workers closed Peabody's Black Mesa and Kayenta Mines, both located on the Navajo Reservation near Kayenta. According to the UMW, the new contract was rejected for several reasons, including staggered vacations and retirement benefits.

Arizona Legislative Update: Proposed Legislation

SB-1186 - Would prohibit a person who retired under the state's early retirement offer (7/26/83 to 1/1/84) from being reemployed in any capacity by an employer who is a member of the State Retirement System. (Majority Finance).

SB-1223 - Would exempt from provisions of law relating to naturopaths any person performing functions under direction of a doctor of naturopathic medicine if such functions do not require such physician's judgement (Davis, R-Tucson).

SB-1224 - Would make various technical amendments to code relating to naturopathic physicians' board of examiners. No substantive changes (Davis, R-Tucson).

SB-1293 Would provide new procedures for revocation, suspension or renewal of permits for pesticide users and sellers and new process for investigation of public complaints about misuse or damage by pesticide applications (Majority Natural Resources and Agriculture).

SB1297 - Would provide ten-year continuation of Structural Pest Control Board beyond original sunset date of July 1, 1984 (Majority Natural Resources and Agriculture).

HB-2110 - Would increase requirements for applicant for mortgage broker's license, including course of instruction, exam and experience (Holman, R-Phoenix).

HB-2308 - Would give Attorney General independent power to enforce provisions of state right-to-work law. Such clear-cut authority is now lacking (Skelly, R-Scottsdale).

HB-2315 - Would require salespersons of manufactured housing (mobile homes, prefabricated buildings) to be licensed and sets requirements for their licensure. Includes punishment for salespersons if they commit acts specified in the law (English, R-Sierra Vista).

HB-2449 - Would establish a board for the regulation of physician's assistants and prescribe minimum qualifications for certification as a physician's assistant. Grandfather clause provided for those now certified as physician's assistants (Wessel, R-Phoenix).

HB-2532 - Would require Board of Chiropractic Examiners to publish a directory of all licensed doctors of chiropractic, to include various items of information useful to the public (Brewer, R-Phoenix).

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Arizona Labor Market NEWSLETTER

Arizona Department of Economic Security

Vol. VIII No. 5
May 1984

Unemployment Rate

Seasonally Adjusted
March*

ARIZONA	5.5%
Maricopa Co.	4.2%
Pima Co.	5.0%
UNITED STATES	7.8%

Consumer Price Index

National-February
1967 - Base Year

Wage Earner/Clerical Worker -	303.3
% Chg. Yr. Ago	3.8
All Urban -	306.6
% Chg. Yr. Ago	4.6

Phoenix-1st Qtr.
1977 - Base Year

All Urban -	177.4
% Chg. Yr. Ago	4.1

Producer Price Index

National-March*
1967 - Base Year

All Commodities-	311.1
% Chg. Yr. Ago	4.7
Finished Goods -	291.7
% Chg. Yr. Ago	2.9

* Preliminary

DECLINING AGRICULTURE?

Sure, agriculture is a declining industry. everybody knows that don't they? -- On the contrary, everybody does not know that, if "everybody" includes a number of Arizona agriculture industry experts:

Bob Moore, executive vice president, Agri-Business Council of Arizona, for instance, says, "Agriculture in Arizona is steady-state, with respect to both employment and the number of major operations. I think that claim is defensible for at least the next decade, but later there will be declining hand-labor usage."

Andy Kurtz, executive secretary, Arizona Farm Bureau, says, "There are 1,300,000 irrigated acres in the state, and that number has been fairly constant over 20 years." He notes that the number of hired farm laborers as reported by the Arizona Crop and Livestock Reporting Service was 15,000 statewide in July 1979 and 13,000 in July 1982, but that many of the new crops being planted in the state are very labor intensive. "Vegetables are the new crop," according to Kurtz. Regarding the Payment-In-Kind (PIK) program, Kurtz points out that a University of Arizona study estimated that only 1410 workers were displaced by the PIK program, which was designed to reduce the amount of fiber and grain grown by U. S. farmers. The program has now been reduced in scope and is active only with respect to some kinds of wheat. Other crop changes going on include substitution of pistachios and pecans for citrus, and more grape farming. Grapes are more labor intensive, but nuts are less labor intensive than citrus, according to Kurtz.

Carl Heath, head inspector, Arizona Fruit and Vegetable Standardization Service, sees an increase in plantings of labor-intensive crops in recent years. For instance, lettuce acreage has doubled and tripled in the last three years and he notes that two big companies have just moved into Cochise County that will produce 3000 acres of leaf lettuce, a crop never before grown in Cochise County. Citing Cochise County again, Heath points out that the number of acres planted in apple orchards has gone from 200 to 3000 in just a few years. Apples are very labor intensive, he says, because it is necessary to hand attach limb spreaders to each tree to give the fruit more sun and to make it easier to pick.

Jimmy Hillman, head of the Department of Agricultural Economics, University of Arizona, says, "Agriculture is not a declining industry in Arizona. Acreage has been constant for 35 years at about 39,000,000 acres. Also, there are about 23,000 employed in agriculture, about the same number as several years ago." In Arizona, it's not land or labor that are the limiting factors -- it's water and capital. According to Hillman, "Arizona farmers are using capital to save part of the other limiting factor -- water. New laser land-leveling techniques are saving 20 or 30 percent of available water. Another new technology, drip irrigation, not only saves water, but increases yields, too. In other words, agriculture is going high-tech."

Rick Lavis, Arizona Cotton Growers Association, observes that, "Acres in cotton were in decline for two years during the Payment-in-Kind (PIK) programs, but they're back up now. I would say that the agriculture industry is not declining, but steady."

John Olson, executive vice president, Arizona Cattle Growers Association, says, "The industry is stabilizing, not declining, but the number of cattle is down, mostly in cattle-feeding operations. Also, in Gila County, for example, there are fewer ranches now, but they're bigger and need more hired labor to help operate them." According to Olson, it is probably well known that the association is pushing a national immigration bill to permit importing foreign labor, because cattle growers cannot get enough of those willing to accept conditions locally. "Typically," says Olson, "cowboy pay is $600 to $650 a month, plus maybe a pickup to drive and a mobile home to live in. These and other payment-in-kind benefits are offered in lieu of higher wages. The life style appeals more to a single man than one who is married with a family." Olson adds that it is not uncommon for there to be five or six help-wanted ads for hired cattlemen in the association's newsletter every issue.

So, does anyone think agriculture is a declining Arizona industry? Yes, some do -- for example:

Ron Brantner, statistician in charge, Arizona Crop and Livestock Reporting Service, states that the agricultural labor force has been shrinking over the years. Nevertheless, he admits, it is hard to tell the situation from available statistics. The service used to take a labor survey every quarter. In 1982, it began taking surveys annually because of funding cuts.

The reporting month is July, not a labor-intensive month in Arizona. But there is some evidence for a potentially improving demand for agricultural labor with the labor-intensive crops that are being increasingly planted.

Ken McGeorge, general manager, Arizona Citrus Growers Association, says, "There is no question that agriculture, especially citrus growing, has been declining in Maricopa County over the years." He directs attention to the quite visible number of orchards that have fallen to housing subdivisions as evidence for this view.

Howard Alexander, press representative, Salt River Project, tends to agree with Ken McGeorge. He states that agricultural acreage has been retired to urban use at a rate of 3000 to 4000 acres per year in the SRP water services territory. In fact, SRP predicts that the present urban service area of just over 60 percent will increase to about 90 percent by the year 2000, and finally 100 percent by the year 2034.

Don Devereaux, press representative, Arizona Farm Workers Union, says, " I don't have any numbers, but our perception is that agriculture is declining in Arizona. Certainly it is in Maricopa County. Citrus is a declining crop in Maricopa County, and in Pinal County, but maybe not as much in Pinal." He contends that members have certainly experienced a declining demand for their services. When asked if he believes farmers are using more contract labor in place of directly hired labor, he responds, "Yes, there must be more, because as we try to negotiate, it is to the farmer's advantage. If we get an agreement with a contractor to one employer, all the farmer has to do is switch contractors to negate the effect of the agreement." Another problem for farm workers, he says, is that former agricultural workers who have left the industry to work in construction, for instance, tend to return to the agriculture industry when times are bad in their new industry. He implies that the effect is to cause more unemployment of farm workers when employment drops off in other industries.

Data about the agricultural industry lend some support to all of these views, but there are no definitive data about the agricultural labor situation. The major sources of available data are the Arizona Crop and Livestock Reporting Service and the Census of Agriculture. In addition, there is some statewide information available from the Current Population Survey.

Now let's take a look at some of the available data.

Arizona agricultural production employment (Standard Industrial Classification 017) for 1976 through 1982 as determined from the Current Population Survey:

1976	1977	1978	1979	1980	1981	1982
27,184	14,443	17,615	17,118	22,958	24,558	27,810

By this measure, it cannot be said agriculture is declining, or even that demand for agricultural labor is declining.

The Arizona Crop and Livestock Reporting Service reports July employment of hired farm labor as:

7/76	7/77	7/78	7/79	7/80	7/81	7/82
15,000	13,500	18,000	15,000	16,000	12,000	13,000

These data suggest some decline in farm employment statewide, but data before 1980 that were collected quarterly suggest as much change occurred in any one year as the range in employment over these seven years, so the apparent decline could be just a matter of timing of crop activity relative to the survey period.

The most detailed data available are from the Census of Agriculture, 1982, which was just released in February this year. Statewide and county tables of selected data items appear following this report.

These data do show declining use of labor in many counties, including the major crop-growing counties of Maricopa, Pinal and Yuma. In order to determine a net decline of labor use, it was necessary to estimate the number of contract laborers from the dollar value of the contracts reported. The estimate was made by using the average wage ($4.11 an hour in 1982) and average hours worked per week (43.6 in 1982) as reported in Arizona Agricultural Statistics, 1982 of the Arizona Crop & Livestock Reporting Service. Then by assuming these are seasonal workers who work less than 150 days a year, the number of workers can be estimated (e.g., $4.11 x 46.3 = $190 per week; $190 x 25 weeks = $4750 per year; $31,252,000 / $4750 = 6,579 workers in 1982). Similarly, using 1978 data of hours and earnings, an estimate can also be made for that year of 8,271 workers. Given these estimates, there has been a net decline of labor usage statewide of 4,909 workers in five years. Using the same method for estimating contract labor workers in each of the counties, it can be shown there was a net labor loss in Gila, Graham, Greenlee, Maricopa, Pima, Pinal, Yavapai and Yuma Counties.

Only by the measure of labor use can it be said that the agriculture industry in Arizona is declining. Other measures show either a steady-state situation or actual growth. For instance, the number of farms is growing (up 16.4 percent statewide) although the number of farms selling more than $40,000 worth of goods is only up 3.3 percent, and the number selling $100,000 or more has declined very slightly (down 0.3 percent). In addition, the market value of all products sold was up 16.5 percent over the five years between the censuses. That amount was nearly equal to inflation of farm prices as measured by the U.S. Commodity Price Index for all farm products (up 16.0 percent). Where agriculture appears to be in a bind is in its rising production expenses. Expenses climbed 67.2 percent between 1977 and 1981. Despite that rise, however, net income increased 17.2 percent in the same period according to the Arizona Agriculture Statistics, 1982 of the Arizona Crop & Livestock Reporting Service.

Unlike copper mining in Arizona, there is no clear evidence that the agriculture industry is in decline. Instead, it appears it is simply getting more efficient, just as agriculture has since the beginning of the industrial revolution. Although some experts contend the efficiencies have gone about as far as they can in reducing labor usage, some decline in labor usage is evident between the agriculture censuses. This evidence suggests that "farm laborer" may, in fact, be a declining occupation.

Ron Simon

CENSUS OF AGRICULTURE
1982

	ARIZONA			APACHE COUNTY			COCHISE COUNTY			COCONINO COUNTY		
	1978	1982	PERCENT CHANGE	1978	1982	PERCENT CHANGE	1978	1982	PERCENT CHANGE	1978	1982	PERCENT CHANGE
FARMS, NUMBER OF	6,298	7,337	+16.4	232	295	+27.2	719	786	+9.3	149	233	+56.4
FARMS SELLING												
$40,000 or more	2,175	2,247	+3.3	49	42	-14.3	207	201	-2.9	35	38	+8.6
$100,000 or more	1,560	1,555	-0.3	24	24	0.0	106	101	-3.8	22	26	+18.2
LAND IN FARMS (ACRES)	38,505,905	36,693,275	-4.9	6,481,084	6,218,104	-4.1	2,272,274	2,003,285	-11.8	5,865,720	5,603,758	-4.5
LAND IN FARMS BY USE												
Cropland												
Farms, Number of	4,472	4,953	+10.8	156	186	+19.2	441	465	+5.4	51	90	+76.4
Acres	1,543,713	1,482,790	-3.9	46,093	37,571	-18.5	133,327	135,024	+1.3	9,079	16,749	+84.5
Harvested Cropland												
Farms, Number of	3,579	3,840	+7.3	107	134	+25.2	333	336	+0.1	25	53	+112.0
Acres	1,160,631	1,048,543	-5.2	8,205	9,579	+16.7	78,079	66,721	-14.5	1,286	(D)	NA
Irrigated Land												
Farms, Number of	4,185	4,440	+6.1	135	153	+13.3	381	385	+1.0	32	43	+34.3
Acres	1,195,727	1,098,857	-8.1	20,906	19,027	-9.0	89,360	74,847	-16.2	2,520	3,759	+49.2
MARKET VALUE OF PRODUCTS SOLD ($1000)	1,311,458	1,527,945	+16.5	10,100	13,647	+35.1	47,097	45,923	-2.4	16,627	12,886	-22.5
PRODUCTION EXPENSES												
Hired Labor												
$1,000	129,517	156,474	+20.8	1,276	1,493	+17.0	4,675	4,211	-9.9	1,049	1,174	+11.9
Workers, Number of	18,732	15,515	-17.2	137	184	+34.3	562	490	-12.8	132	153	+16.9
Farms, Number of	2,119	2,086	-1.6	50	42	-16.0	187	180	-3.7	42	43	+2.4
Contract Labor												
$1,000	29,056	31,252	+7.6	40	34	-15.0	667	1,524	+128.5	59	(D)	NA
LMI Estimated Number of Seasonal Workers (Under 150 days)	8,271	6,570	-20.6	11	7	-36.4	190	320	+68.0	17	NA	NA
DECLINING? (NET LABOR LOSS)			YES			NO			NO			NO

	GILA COUNTY			GRAHAM COUNTY			GREENLEE COUNTY			MARICOPA COUNTY		
	1978	1982	PERCENT CHANGE	1978	1982	PERCENT CHANGE	1978	1982	PERCENT CHANGE	1978	1982	PERCENT CHANGE
FARMS, NUMBER OF	132	163	+23.5	288	308	+6.9	124	120	-3.2	2,028	2,045	+0.8
FARMS SELLING												
$40,000 or more	31	22	-29.0	124	121	-2.4	27	22	-18.5	783	742	-5.2
$100,000 or more	13	9	-30.8	83	75	-0.8	7	7	0.0	597	540	-1.2
LAND IN FARMS (ACRES)	1,166,761	1,151,510	-1.3	1,872,587	1,821,991	-2.7	160,965	135,315	-15.9	1,413,279	1,429,630	+1.2
LAND IN FARMS BY USE												
Cropland												
Farms, Number of	64	90	+40.6	228	227	-0.4	86	89	+3.4	1,603	1,745	+8.9
Acres	7,091	5,056	-28.7	55,136	54,056	-2.0	8,084	(D)	NA	509,001	463,729	-9.8
Harvested Cropland												
Farms, Number of	23	44	+91.3	194	184	-5.2	66	63	-4.5	1,295	1,357	+4.8
Acres	(D)	835	NA	43,361	42,868	-1.1	1,188	(D)	NA	432,225	371,613	-14.0
Irrigated Land												
Farms, Number of	41	58	+41.5	218	215	-1.4	83	82	-1.2	1,553	1,630	+5.0
Acres	1,430	766	-46.4	45,897	44,243	-3.6	5,641	4,258	-24.5	452,147	378,856	-16.2
MARKET VALUE OF PRODUCTS SOLD ($1000)	4,089	3,597	-12.0	32,384	30,555	-5.6	3,761	3,847	+2.3	539,435	627,685	+16.4
PRODUCTION EXPENSES												
Hired Labor												
$1,000	640	399	-37.6	3,199	3,213	+0.4	330	281	-14.8	54,114	62,912	+16.3
Workers, Number of	67	60	-10.4	389	312	-19.8	44	45	+2.3	9,468	6,888	-27.3
Farms, Number of	36	31	-13.8	114	109	-4.4	26	18	-30.8	728	691	-5.1
Contract Labor												
$1,000	38	9	-76.3	193	107	-44.5	62	62	0.0	9,595	16,118	+68.0
LMI Estimated Number of Seasonal Workers (Under 150 days)	11	2	-81.8	55	22	-60.0	18	13	-27.8	2,731	3,388	+24.0
DECLINING? (NET LABOR LOSS)			YES			YES			YES			YES
U.S. COMMODITY PRICE INDEX ALL FARM PRODUCTS	525	609	+16.0									

(D) = Disclosure - Data withheld to avoid disclosing individual farm information.

NA = Not Available

CENSUS OF AGRICULTURE
1982

	MOHAVE COUNTY			NAVAJO COUNTY			PIMA COUNTY			PINAL COUNTY		
	1978	1982	PERCENT CHANGE	1978	1982	PERCENT CHANGE	1978	1982	PERCENT CHANGE	1978	1982	PERCENT CHANGE
FARMS, NUMBER OF	193	222	+15.0	269	330	+22.7	406	539	+32.7	525	607	+15.6
FARMS SELLING												
$40,000 or more	42	42	0.0	41	47	+14.6	114	102	-10.5	345	346	+0.3
$100,000 or more	25	29	+16.0	26	30	+15.4	83	68	-18.1	274	275	+0.4
LAND IN FARMS (ACRES)	2,425,545	2,103,739	-13.3	7,335,940	7,210,858	-2.0	3,688,294	3,476,555	-5.7	2,387,333	2,276,313	-4.7
LAND IN FARMS BY USE												
Cropland												
Farms, Number of	105	108	+2.9	187	223	+19.3	198	225	+13.6	413	486	+17.7
Acres	(D)	23,935	NA	22,136	27,939	+26.2	(D)	(D)	NA	361,117	320,229	-11.3
Harvested Cropland												
Farms, Number of	78	72	-7.7	125	150	+20.0	143	152	+6.3	377	441	+14.5
Acres	9,868	11,792	+19.4	6,569	7,368	+12.2	42,126	34,928	-17.1	206,679	210,766	+2.0
Irrigated Land												
Farms, Number of	93	88	-5.4	164	184	+12.2	177	195	+10.2	406	459	+12.3
Acres	12,262	13,127	+7.1	11,390	10,229	-10.2	46,819	37,914	-19.0	221,578	214,181	-3.3
MARKET VALUE OF PRODUCTS SOLD, $1000	11,260	14,378	+27.7	16,596	27,844	+67.8	50,134	45,162	-9.9	287,601	324,561	+12.9
PRODUCTION EXPENSES												
Hired Labor												
$1,000	1,284	1,772	+38.0	1,329	1,210	-9.0	5,003	4,928	-1.5	18,943	22,192	+17.2
Workers, Number of	183	167	-8.7	38	40	+5.3	576	478	-17.1	2,016	1,974	-2.0
Farms, Number of	48	59	+22.9	228	133	-41.6	119	114	-4.2	275	301	+9.5
Contract Labor												
$1,000	60	(D)	NA	41	23	-43.9	385	467	+21.3	4,511	4,258	-5.6
LMI Estimated Number of Seasonal Workers (Under 150 days)	19	NA	NA	12	5	-58.3	110	98	-10.9	1,284	895	-30.3
DECLINING? (NET LABOR LOSS)			NO			NO			YES			YES

	SANTA CRUZ COUNTY			YAVAPAI COUNTY			YUMA COUNTY		
	1978	1982	PERCENT CHANGE	1978	1982	PERCENT CHANGE	1978	1982	PERCENT CHANGE
FARMS, NUMBER OF	130	133	+2.3	379	475	+25.3	724	721	-0.4
FARMS SELLING									
$40,000 or more	29	28	-3.4	85	80	-5.9	335	332	-0.9
$100,000 or more	11	10	-9.1	42	41	-2.4	247	260	+5.3
LAND IN FARMS (ACRES)	407,326	354,074	-13.1	2,511,625	2,397,718	-4.5	496,770	510,425	+2.7
LAND IN FARMS BY USE									
Cropland									
Farms, Number of	50	56	+12.0	211	291	+37.9	679	672	-1.0
Acres	7,732	9,992	+29.3	21,348	29,609	+38.7	281,074	302,997	+7.8
Harvested Cropland									
Farms, Number of	24	23	-4.2	125	176	+40.8	664	655	-1.4
Acres	1,975	1,378	-30.2	6,665	(D)	NA	264,095	277,149	+4.9
Irrigated Land									
Farms, Number of	33	34	+3.0	194	250	+28.9	675	667	-1.2
Acres	3,968	2,128	-46.4	13,743	12,269	-10.7	268,066	283,253	+5.7
MARKET VALUE OF PRODUCTS SOLD ($1000)	4,306	4,184	-2.8	19,526	18,320	-6.2	268,542	355,355	+32.3
PRODUCTION EXPENSES									
Hired Labor									
$1,000	568	580	+2.1	1,576	1,444	-8.4	35,531	50,665	+42.6
Workers, Number of	90	114	+26.6	310	258	-16.8	4,530	4,257	-16.0
Farms, Number of	46	56	+21.7	111	141	+27.0	299	261	-12.7
Contract Labor									
$1,000	30	54	+80.0	85	40	-52.9	13,286	8,436	-36.5
LMI Estimated Number of Seasonal Workers (Under 150 days)	9	11	+22.2	24	8	-16.7	3,782	1,773	-53.1
DECLINING? (NET LABOR LOSS)			NO			YES			YES

U.S. COMMODITY PRICE INDEX (ALL FARM PRODUCTS)	525	609	+16.0

(D) = Disclosure - Data withheld to avoid disclosing individual farm information.

NA = Not Available

ECONOMIC RECOVERY IN ARIZONA: HOW LONG AND HOW STRONG?

When the 1984 Arizona employment forecast was unveiled in February, the outlook for the national economy was bright. Some clouds have appeared on the horizon, however, in the form of rising interest rates. An air of uncertainty surrounds the economy today; news of employment gains, capital spending and housing starts is mixed with reports of higher consumer prices, government deficits and trade imbalances.

As a growing state, Arizona is dependent on industries that are vulnerable to an economic downturn. In order to examine the sensitivity of Arizona to the course of the national economy, Labor Market Information's Forecasting and Analysis section used the forecasting model to simulate three alternative scenarios. The national forecasts underlying the Arizona employment simulations are supplied by Data Resources, Inc. of Lexington, Massachusetts. Alternative assumptions regarding the future course of the U. S. economy are summarized in Table 1.

The Control forecast represents the most likely course for the economy, assuming that interest rates remain stable and growth continues at a moderate pace. The Optimistic forecast calls for a gradual decline in interest rates and strong economic growth resulting from higher levels of investment and savings. The Pessimistic scenario is characterized by boom conditions in early 1984. Growth is not sustained as rapidly rising interest rates and reduced investment ultimately send the economy on a lower growth path.

Table 2 shows the effects of each simulation on employment in Arizona. It is interesting to note that there is little difference among the alternative forecasts during the first year--in fact, employment grows fastest in the Pessimistic forecast. There is little warning of the diverging paths Arizona's economy may take in the future. By the end of 1986, the Optimistic scenario predicts a level of wage and salary employment in Arizona which is nearly 65,000 jobs above the level in the Pessimistic forecast. The long run effects of the alternative simulations are illustrated in Figures 1 and 2.

The credit crunch predicted by the Pessimistic forecast arrives in late 1984-1985. New construction is the first sector affected. Employment in construction declines gradually in 1985 and falls sharply in 1986 and beyond, as high interest rates discourage housing and commercial construction. Manufacturing employment, a strong growth area in recent times, stays virtually flat in the Pessimistic scenario. Overall wage and salary employment rises only by 7,000 workers during 1986 in this forecast. Our Control forecast, by contrast, shows over 40,000 wage and salary jobs added in 1986, while the Optimistic version predicts over 65,000 new positions in the same year, with manufacturing, construction and trade leading the way. The predicted 1986 unemployment rate of 9.3 percent in the Pessimistic forecast is nearly 50 percent higher than the Optimistic forecast of 6.4 percent during the same period.

TABLE 1

KEY-ASSUMPTIONS

	Optimistic	Control	Pessimistic
1984			
U. S. Unemployment Rate	7.4%	7.5%	7.3%
Real GNP Growth	5.8%	5.5%	6.3%
Average Prime Rate	10.71%	11.02%	11.45%
1985			
U. S. Unemployment Rate	6.8%	7.2%	7.3%
Real GNP Growth	4.3%	3.2%	1.7%
Average Prime Rate	10.05%	11.59%	13.63%
1986			
U. S. Unemployment Rate	6.4%	7.4%	8.6%
Real GNP Growth	4.0%	2.6%	0.3%
Average Prime Rate	8.54%	10.80%	13.88%

SOURCE: Labor Market Information
March 1984

The implications are clear: a stable, growing national economy will create continued employment growth in nearly every industrial category, while the uncertainty resulting from a potential boom/bust pattern in 1984-1985 would choke off construction activity and growth in manufacturing, services and trade. Arizona would suffer from many fewer job opportunities and a permanently higher level of unemployment.

There is no doubt that fluctuations in the nation's economic fortunes are a way of life. We must make every effort to identify the links between the U. S. economy and Arizona and to understand the effects of national and international events on the state. In the months ahead, we will hope for the best while remaining aware of developments which have an adverse impact on the labor market in Arizona.

Brian Cary

TABLE 2

ARIZONA
(in thousands)

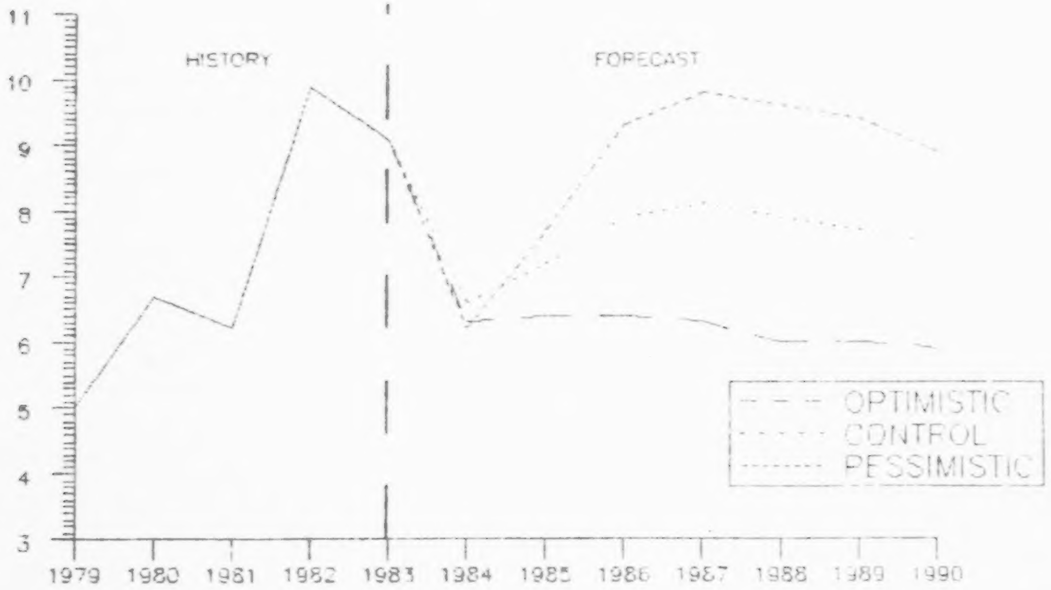
	1983 Ann. Avg.	1984 Ann. Avg.	1985 Ann. Avg.	1986 Ann. Avg.	1983-1986 Ann. Avg. Growth Rate (%)
CONTROL					
Unemployment Rate	9.1	6.6	7.2	7.9	--
Wage & Salary	1,064.5	1,124.2	1,171.7	1,218.9	4.8
Manufacturing	155.7	164.4	172.2	180.8	5.4
Mining	14.2	14.2	15.0	15.9	4.0
Construction	76.4	85.1	86.0	87.9	5.0
T.C.P.U.	56.0	58.7	60.9	62.6	3.9
Trade	257.3	273.0	286.6	298.5	5.3
F.I.R.E.	65.4	68.1	70.9	73.5	4.1
Service	237.4	252.4	265.9	280.1	6.0
Government	202.1	208.2	214.1	219.6	2.9
OPTIMISTIC					
Unemployment Rate	9.1	6.3	6.4	6.4	--
Wage & Salary	1,064.5	1,126.4	1,182.2	1247.5	6.6
Manufacturing	155.7	164.9	175.0	188.4	7.0
Mining	14.2	14.4	15.1	16.2	4.7
Construction	76.4	85.2	87.4	92.1	6.8
T.C.P.U.	56.0	58.9	61.8	65.2	5.5
Trade	257.3	273.7	289.6	306.2	6.3
F.I.R.E.	65.4	68.2	71.0	74.1	4.4
Service	237.4	252.7	267.2	283.4	6.5
Government	202.1	208.4	215.0	221.7	3.2
PESSIMISTIC					
Unemployment Rate	9.1	6.2	7.7	9.3	--
Wage & Salary	1,064.5	1,130.0	1,176.0	1,182.9	3.9
Manufacturing	155.7	165.5	173.3	173.6	3.8
Mining	14.2	14.4	15.2	16.3	4.9
Construction	76.4	86.6	85.4	76.6	0.1
T.C.P.U.	56.0	59.1	61.6	61.5	3.3
Trade	257.3	274.3	288.2	292.9	4.6
F.I.R.E.	65.4	68.5	71.7	72.5	3.6
Service	237.4	252.8	266.6	278.4	5.6
Government	202.1	208.7	214.0	217.7	2.6

SOURCE: Labor Market Information
March 1984

FIGURE 1

ARIZONA

UNEMPLOYMENT RATE



DEPARTMENT OF ECONOMIC SECURITY
LABOR MARKET INFORMATION

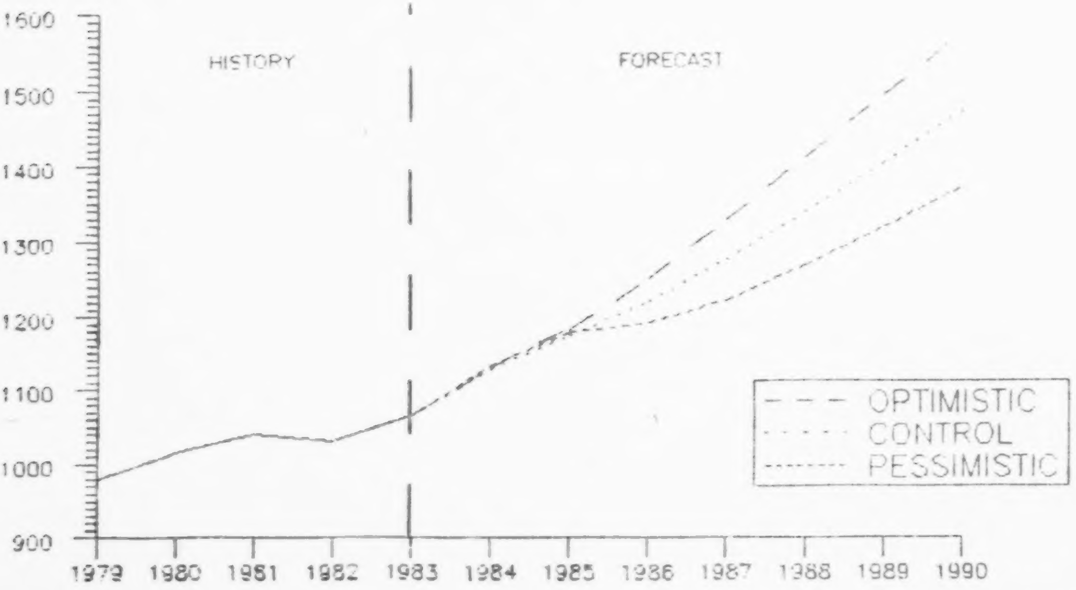
April 1984

FIGURE 2

ARIZONA

WAGE AND SALARY EMPLOYMENT

(IN THOUSANDS)



DEPARTMENT OF ECONOMIC SECURITY
LABOR MARKET INFORMATION

April 1984

Arizona Labor Force and Employment

March 1984 (in thousands)

	ARIZONA				
				-- Amt Change --	
	Mar.* 1984	Feb. 1984	Mar. 1983	Feb. to Mar.	1983 to 1984
TOTAL CIVILIAN LABOR FORCE	1410.2	1406.6	1373.6	+3.6	+36.6
Total Unemployment	76.2	80.1	141.2	-3.9	-65.0
Rate	5.4	5.7	10.3	---	---
Rate (Sea. Adj.)**	5.5	5.6	10.4	---	---
Total Employment	1334.0	1326.5	1232.4	+7.5	+101.6

THE ABOVE LABOR FORCE STATISTICS SHOULD NOT BE

NONAGRICULTURAL WAGE AND SALARY EMPLOYMENT BY PLACE OF WORK

	Mar.* 1984	Feb. 1984	Mar. 1983	Feb. to Mar.	1983 to 1984
TOTAL WAGE AND SALARY	1132.6	1120.4	1050.6	+12.2	+82.0
Manufacturing	164.5	162.7	150.9	+1.8	+13.6
Durable Goods	128.9	127.2	116.9	+1.7	+12.0
Stone, Clay and Glass	6.7	6.8	5.5	-0.1	+1.2
Primary and Fabricated Metals	14.8	14.6	14.3	+0.2	+0.5
Primary Metals	6.4	6.4	6.6	+0.0	-0.2
Fabricated Metals	8.4	8.2	7.7	+0.2	+0.7
Machinery	64.6	64.0	60.3	+0.6	+4.3
Other Durable Goods	42.8	41.8	36.8	+1.0	+6.0
Aircraft and Missiles	18.9	18.6	17.3	+0.3	+1.6
Lumber and Wood Products (Except Furniture)	6.9	6.7	5.6	+0.2	+1.3
All Other Durable Goods	17.0	16.5	13.9	+0.5	+3.1
Nondurable Goods	35.6	35.5	34.0	+0.1	+1.6
Food and Kindred Products	7.6	7.6	8.1	+0.0	-0.5
Apparel	5.5	5.5	5.0	+0.0	+0.5
Printing and Publishing	12.8	12.8	11.8	+0.0	+1.0
All Other Nondurable Goods	9.7	9.6	9.1	+0.1	+0.6
Mining and Quarrying	13.2	14.2	14.4	-1.0	-1.2
Copper Mining	11.0	11.3	11.6	-0.3	-0.6
Other Mining and Quarrying	2.2	2.9	2.8	-0.7	-0.6
Construction	86.3	83.5	69.4	+2.8	+16.9
Trans., Communications, and Public Utilities	59.1	58.5	56.3	+0.6	+2.8
Transportation	25.1	24.7	23.2	+0.4	+1.9
Communications and Public Utilities	34.0	33.8	33.1	+0.2	+0.9
Trade	269.4	268.1	253.4	+1.3	+16.0
Wholesale Trade	54.5	54.1	50.6	+0.4	+3.9
Retail Trade	214.9	214.0	202.8	+0.9	+12.1
General Merchandise and Apparel	36.0	35.7	35.4	+0.3	+0.6
Food Stores	34.0	34.0	33.1	+0.0	+0.9
Automotive and Service Stations	25.0	24.7	23.7	+0.3	+1.3
Eating and Drinking Places	76.9	76.2	70.4	+0.7	+6.5
Other Retail Trade	43.0	43.4	40.2	-0.4	+2.8
Finance, Insurance, and Real Estate	68.5	67.7	63.7	+0.8	+4.8
Services and Miscellaneous	255.4	252.6	232.6	+2.8	+22.8
Hotels and Other Lodging Places	27.5	26.7	25.4	+0.8	+2.1
Business Services	52.0	51.2	44.3	+0.8	+7.7
Health Services	67.3	66.9	63.4	+0.4	+3.9
Other Services	108.6	107.8	99.5	+0.8	+9.1
Government	216.2	213.1	209.9	+3.1	+6.3
Federal	39.4	39.2	38.0	+0.2	+1.4
State and Local	176.8	173.9	171.9	+2.9	+4.9
School	110.5	108.4	106.6	+2.1	+3.9

* Preliminary

** Normal seasonal variations have been eliminated to reflect underlying economic trends.

NOTE--Data have been adjusted to the 1972 Standard Industrial Classifications (SIC).

March 1984 (in thousands)

MARICOPA COUNTY					PIMA COUNTY				
			-- Amt Change --					-- Amt Change --	
Mar.* 1984	Feb. 1984	Mar. 1983	Feb. to Mar.	1983 to 1984	Mar.* 1984	Feb. 1984	Mar. 1983	Feb. to Mar.	1983 to 1984
890.9	885.6	843.3	+5.3	+47.6	260.3	260.4	256.3	-0.1	+4.0
37.0	38.5	68.2	-1.5	-31.2	13.0	13.8	27.2	-0.8	-14.2
4.2	4.3	8.1	---	---	5.0	5.3	10.6	---	---
4.2	4.3	8.2	---	---	5.0	5.3	10.7	---	---
853.9	847.1	775.1	+6.8	+78.8	247.3	246.6	229.1	+0.7	+18.2

SED FOR ECONOMIC ASSISTANCE PROGRAMS

NONAGRICULTURAL WAGE AND SALARY EMPLOYMENT BY PLACE OF WORK

738.8	729.0	674.2	+9.8	+64.6	208.4	206.6	194.6	+1.8	+13.8
119.2	117.7	108.8	+1.5	+10.4	27.7	27.6	25.8	+0.1	+1.9
94.3	92.9	85.6	+1.4	+8.7	23.0	22.9	21.1	+0.1	+1.9
4.0	4.1	3.2	-0.1	+0.8					
9.3	9.2	9.4	+0.1	-0.1					
51.9	51.2	47.7	+0.7	+4.2					
29.1	28.4	25.3	+0.7	+3.8					
24.9	24.8	23.2	+0.1	+1.7	4.7	4.7	4.7	+0.0	+0.0
5.1	5.1	5.7	+0.0	-0.6					
3.3	3.3	2.6	+0.0	+0.7					
9.5	9.5	8.6	+0.0	+0.9					
7.0	6.9	6.3	+0.1	+0.7					
0.7	0.6	0.6	+0.1	+0.1	3.6	3.6	3.8	+0.0	-0.2
60.2	58.4	48.5	+1.8	+11.7	17.4	16.8	12.5	+0.6	+4.9
38.2	37.7	35.7	+0.5	+2.5	9.0	8.9	8.7	+0.1	+0.3
16.9	16.6	15.2	+0.3	+1.7	4.0	3.9	3.6	+0.1	+0.4
21.3	21.1	20.5	+0.2	+0.8	5.0	5.0	5.1	+0.0	-0.1
183.6	182.3	171.0	+1.3	+12.6	43.8	43.9	42.1	-0.1	+1.7
42.7	42.3	39.8	+0.4	+2.9	6.4	6.4	5.8	+0.0	+0.6
140.9	140.0	131.2	+0.9	+9.7	37.4	37.5	36.3	-0.1	+1.1
23.2	22.8	22.9	+0.4	+0.3	6.5	6.7	6.2	-0.2	+0.3
21.9	21.9	21.0	+0.0	+0.9	5.5	5.5	5.5	+0.0	+0.0
16.0	15.8	14.9	+0.2	+1.1	4.1	4.0	4.0	+0.1	+0.1
49.8	49.2	44.8	+0.6	+5.0	13.9	13.8	13.4	+0.1	+0.5
30.0	30.3	27.6	-0.3	+2.4	7.4	7.5	7.2	-0.1	+0.2
53.7	52.9	49.9	+0.8	+3.8	9.6	9.6	8.7	+0.0	+0.9
174.4	172.3	155.4,	+2.1	+19.0	48.0	47.8	45.5	+0.2	+2.5
16.7	16.3	15.3	+0.4	+1.4	4.7	4.7	4.3	+0.0	+0.4
43.1	42.3	36.5	+0.8	+6.6	7.3	7.2	6.3	+0.1	+1.0
45.6	45.3	42.1	+0.3	+3.5	13.7	13.8	13.7	-0.1	+0.0
69.0	68.4	61.5	+0.6	+7.5	22.3	22.1	21.2	+0.2	+1.1
108.8	107.1	104.3	+1.7	+4.5	49.3	48.4	47.5	+0.9	+1.8

-- Prepared by Labor Market Information, Research and Analysis (CPS-M00, 1/84)

NONMETROPOLITAN COUNTIES LABOR FORCE AND EMPLOYMENT
March 1984 (Preliminary)

	Apache	Cochise	Coconino	Gila	Graham	Greenlee	La Paz
TOTAL CIVILIAN LABOR FORCE*	14,300	28,500	34,600	13,875	7,475	3,900	4,750
Total Unemployment	1,800	2,175	2,525	1,925	700	275	650
Rate	12.6%	7.6%	7.3%	13.9%	9.4%	7.1%	13.7%
Rate (Seas. Adj.)**	12.6%	7.7%	7.1%	13.4%	9.3%	7.1%	-INA-
Total Employment	12,500	26,325	32,075	11,950	6,775	3,625	4,100

THE ABOVE LABOR FORCE STATISTICS SHOULD NOT BE USED
FOR ECONOMIC ASSISTANCE PROGRAMS

	Apache	Cochise	Coconino	Gila	Graham	Greenlee	La Paz
TOTAL WAGE AND SALARY	12,950	21,400	30,025	9,600	4,275	3,125	2,350
Manufacturing	625	1,500	2,375	1,425	100	350	100
Mining and Quarrying	50	350	50	1,375	75	1,650	0
Construction	1,475	875	975	425	125	50	75
Trans., Comm., & Pub. Util.	1,625	1,300	2,600	275	150	50	50
Trade	1,025	4,350	6,775	1,700	1,150	325	800
Fin., Insur., & Real Estate	150	625	600	225	100	25	100
Services and Miscellaneous	3,200	2,600	6,525	1,500	700	100	650
Government	4,800	9,800	10,125	2,675	1,875	575	575

	Mohave	Navajo	Pinal	Santa Cruz	Yavapai	Yuma
TOTAL CIVILIAN LABOR FORCE*	20,925	24,450	30,475	8,600	31,625	35,575
Total Unemployment	2,250	2,575	3,475	1,050	2,975	3,825
Rate	10.8%	10.5%	11.4%	12.2%	9.4%	10.8%
Rate (Seas. Adj.)**	10.7%	10.5%	11.6%	15.0%	8.8%	-INA-
Total Employment	18,675	21,875	27,000	7,550	28,650	31,750

THE ABOVE LABOR FORCE STATISTICS SHOULD NOT BE USED
FOR ECONOMIC ASSISTANCE PROGRAMS

	Mohave	Navajo	Pinal	Santa Cruz	Yavapai	Yuma
TOTAL WAGE AND SALARY	14,850	16,400	22,775	7,525	17,225	22,875
Manufacturing	2,100	1,775	2,550	875	2,075	1,725
Mining and Quarrying	250	375	4,050	25	675	50
Construction	825	600	550	225	950	1,450
Trans., Comm., & Pub. Util.	925	1,575	1,000	550	875	975
Trade	4,125	2,925	3,800	3,200	4,425	7,375
Fin., Insur., & Real Estate	725	275	725	225	725	750
Services and Miscellaneous	2,800	4,450	2,150	1,050	3,150	4,075
Government	3,100	4,425	7,950	1,375	4,350	6,475

*Adjusted to the Current Population Survey (CPS) to reflect place of residence.
**Seasonal adjustment not applicable for economic assistance programs.

NOTE--Series for Yuma and La Paz counties start January 1983. Data are not comparable to any past series.

ARIZONA LABOR FORCE AND EMPLOYMENT FOR ECONOMIC ASSISTANCE PROGRAMS

February 1984 (Final)

County	Civilian Labor Force	Employment	Unemployment	Rate
Statewide	1,406,556	1,326,462	80,094	5.7%
Apache	14,401	12,450	1,951	13.5
Cochise	28,754	26,329	2,425	8.4
Coconino	34,524	31,770	2,754	8.0
Gila	14,102	12,089	2,013	14.3
Graham	7,481	6,748	733	9.8
Greenlee	3,901	3,634	267	6.8
La Paz	4,721	4,061	660	14.0
Maricopa	885,569	847,093	38,476	4.3
Mohave	21,710	19,273	2,437	11.2
Navajo	24,719	21,795	2,924	11.8
Pima	260,364	246,587	13,777	5.3
Pinal	30,548	26,943	3,605	11.8
Santa Cruz	8,595	7,430	1,165	13.6
Yavapai	31,896	28,819	3,077	9.6
Yuma	35,271	31,441	3,830	10.9

Data have been adjusted to the 1972 Standard Industrial Classification (SIC). These figures are the only official BLS labor statistics to be used for revenue sharing purposes. They are not designed to be used as economic indicators. Note: Series for Yuma and La Paz counties start January 1983. Data are not comparable to any past series.

ESTIMATED HOURS AND EARNINGS OF PRODUCTION WORKERS IN SELECTED INDUSTRIES IN ARIZONA

March 1984

INDUSTRY	AVERAGE WEEKLY EARNINGS			AVERAGE WEEKLY HOURS			AVG. HOURLY EARNINGS		
	MAR.* 1984	FEB. 1984	MAR. 1983	MAR.* 1984	FEB. 1984	MAR. 1983	MAR.* 1984	FEB. 1984	MAR. 1983
	----	----	----	----	----	----	----	----	----
FOR THE STATE OF ARIZONA*									
Manufacturing	368.34	374.95	348.96	40.7	40.8	39.7	9.05	9.19	8.79
Aircraft & Missiles	480.10	512.75	465.89	42.3	43.9	42.2	11.35	11.68	11.04
Food & Kindred Products	316.80	312.56	330.89	38.4	38.4	40.6	8.25	8.14	8.15
Primary Metals	456.55	474.39	456.87	37.3	38.6	38.2	12.24	12.29	11.96
Machinery	339.42	338.92	320.80	40.6	40.3	39.9	8.36	8.41	8.04
Copper Mining	520.42	562.65	514.44	39.1	42.4	39.3	13.31	13.27	13.09
Construction	416.94	411.41	458.92	36.8	35.9	38.5	11.33	11.46	11.92
Utilities	524.10	524.10	479.12	43.1	43.1	42.4	12.16	12.16	11.30
Retail Trade**	232.07	225.08	205.08	33.2	32.2	33.4	6.99	6.99	6.14
Wholesale Trade	343.01	343.01	334.67	39.7	39.7	39.7	8.64	8.64	8.43

* Preliminary

** Excludes eating and drinking places.

NOTE--These estimates are based on a sample of full and part-time production and related employees whose payroll and hours are reported for the pay period which includes the 12th of the month. All data have been adjusted to the 1972 Standard Industrial Classifications (SIC).

--Prepared by Labor Market Information, Research and Analysis (1972 SIC, 1/84)

THE ARIZONA LABOR FORCE IN MARCH 1984

Arizona's economic news keeps getting better each month. In July 1982, total unemployment reached a peak level of 151,000. In less than two years, it has fallen to nearly half that level and the total number of people working has risen by 156,000. Record employment levels were recorded in March for total employment, as well as for manufacturing, services, government and the finance, insurance and real estate industries.

Comparing Arizona to other states makes the magnitude of our economic improvement even clearer. In January 1983, 24 states had unemployment rates lower than Arizona. By February 1984 (the most recent date for which comparable data are available), that had fallen to eight states with lower rates. And we estimate that, when comparable data for March are available, only four to six states will have lower unemployment rates. The improvement is most evident in our metropolitan communities. Out of 244 metropolitan areas nationwide, only seven had unemployment rates lower than Phoenix while 40 had unemployment rates lower than Tucson.

Looking at employment by industry, nearly every major sector, except mining, is at or near record levels of employment. While manufacturing, services, government and the finance, insurance and real estate industries are at record levels, the construction industry is within five percent of its record level and trade is below record levels only because it is beginning to lose some of its heavy winter season business. But in general, employment conditions continue to look very good. Many businesses in the metropolitan areas are hiring and show no sign at this time of slowing.

The only dark cloud on our otherwise bright economic landscape is mining. The loss of 1,000 jobs this month was partly the result of copper layoffs and partly the result of a strike at Peabody Coal. Employment in mining is nearly half of its peak level recorded in June 1981 of 25,700 and now represents less than 1.2 percent of all the state's jobs.

Looking ahead, it appears that the decline in unemployment will probably stall in a few months. While many new jobs are being created, people who fill these positions are not helping to reduce the ranks of the unemployed. Rather, people who had not previously been in the labor market are moving immediately into a job without first experiencing unemployment. In addition, an improving national economy and an awareness of Arizona's economic strength will probably encourage many people to move here this summer. This will be particularly evident in the state's metropolitan areas.

In this case, a stabilization or rise in the unemployment rate should not be cause for concern. As unemployment rates reach these low levels, employers become more aggresive in attracting needed staff and people again reenter the labor market. At least for the foreseeable future, Arizona's metropolitan areas look very strong.

ARIZONA UNEMPLOYMENT INSURANCE ACTIVITIES - FEBRUARY 1984

	February 1984	January 1984	February 1983	% Change From One Year Ago
Arizona Claimants Served**	31,302	33,168	70,881	-55.8%
Arizona Average Weeks Unemployed***	9.0	9.7	9.7	- 7.2%
Arizona Benefits Paid**	$ 9,890,768	$ 9,882,100	$ 22,093,021	-55.2%
Arizona Trust Fund Balance	$168,594,587	$163,587,294	$189,971,130	-11.3%

*Estimated **All Programs ***UI Only

BOATING IN ARIZONA

Arizonans love boating. Despite our state's vast desert areas and land-locked geography, boating is a major recreational sport. Testifying to its popularity are the 8.5 million visits made to water-based recreational areas in Arizona in 1982, more than half of the visits recorded to all national and state parks in Arizona during that year.*

Another way of measuring boating's popularity is to look at the statistics on boat registrations maintained by the Arizona Game and Fish Department. For the ten-year period 1970 to 1980, boat registrations increased 110 percent while Arizona's population increased 53 percent. With the 1981-82 recession, growth in boat registrations fell behind population growth (2.4 percent versus 3.3 percent); in 1983, as the economy recovered, boat registrations once again outgrew population (3.3 percent to 1.8 percent).

It seems, then, that Arizonans are increasingly choosing boating as a form of recreation. In fact, it has been said that there are more boats registered in Arizona, relative to the population, than in any other state. The facts, however, do not bear out this claim. Unlike most states, Arizona requires that all privately owned watercraft be registered. Only three other states--Minnesota, Ohio and Oklahoma--have similar registration requirements. Using the 1980 figures for boat registrations and population in these states, the following ratios of persons to boats have been computed:

Minnesota	7.0
Oklahoma	17.9
ARIZONA	28.5
Ohio	40.0

According to these figures, boat ownership is more common in Arizona than in Ohio but much less common than in Oklahoma and Minnesota.

But what is boating's economic impact in Arizona? While many of the data that would enable us to measure this with precision are unavailable, certain facts are clear. First, boating is an economic factor in six Arizona counties -- Coconino, Maricopa, Mohave, Pima, Santa Cruz and Yuma. These are the only counties in which individuals are employed by firms specializing either in the manufacture and repair of boats, in water transportation services, or in retail boat sales. (Information on boat-related employment by wholesalers and by retail sporting goods stores is unavailable.)

Firms specializing in boat building and repair are found in Coconino, Maricopa and Mohave Counties. In 1982, a total of 12 such firms employed about 270 persons and paid a total of $5.3 million in wages. Certainly the largest of these 12 firms is Sea Ray Boats Inc. whose corporate headquarters is located in Phoenix. Each year over 8,000 hulls are produced at the company's 125,000 square-foot plant for prices ranging from $10,000 to $50,000. Sea Ray sells to dealers in the United States, Canada, Europe and Australia and the company estimates that it has a 12 percent share of the U.S. market. Within Arizona, Sea Ray's two strongest markets are the Phoenix metro area and Lake Powell.

Water-transportation services are less of a factor in Arizona's economy. In 1982, about 110 workers (.5 percent of transportation industry employment) received wages of $1.3 million. Most of this employment was concentrated in Coconino and Mohave Counties followed, in descending order, by Pima, Maricopa, Yuma and Santa Cruz Counties.

During 1982, there were 37 firms in Arizona primarily engaged in the retail sale of motorboats and other watercraft, marine supplies and other outboard motors. These firms employed some 192 workers at wages exceeding $2.6 million. Slightly over 55 percent of this employment and 60 percent of wages was in Maricopa County. Mohave County firms accounted for 12 percent of total wages followed by Pima, Coconino and

Yuma Counties. Average weekly salaries in 1982 were $264, ahead of those for general retail trade workers ($188) but well behind those received by workers in other big-ticket retail trade segments such as automobiles ($387). Wage information available from the first two quarters of 1983 shows that wages for workers in retail boat sales increased with the economic recovery to a weekly average of $314 but this increase was only slightly ahead of that for automobile sales workers (18.9 percent versus 13.7 percent).

Retail expenditures related to boating are substantial. The National Marine Manufacturers Association (NMMA) publishes statistics on the state distribution of boat, motor, trailer and accessory purchases. According to the NMMA's figures for 1982, Arizonans spent $12.56 per capita on boats, outboard motors, boat trailers and marine accessories. Per capita expenditures in selected other states were as follows:

Nevada	$18.54
Texas	15.67
Utah	14.53
Idaho	13.58
ARIZONA	12.56
Oklahoma	12.50
California	10.15
Colorado	8.85
New Mexico	5.85

JoAnn Wilson

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* Arizona Economic Indicators, University of Arizona Division of Economic and Business Research, Spring/Summer 1984.

COUNSELOR TRAINING IN LMI OFFERED IN JUNE

Career counselors, vocational counselors, job counselors, vocational rehabilitation counselors, special education counselors -- don't make your summer plans without considering this opportunity. The new Research Administration of the Arizona Department of Economic Security is offering three one-week training seminars about labor market and career information for client counseling in June. Cooperating in offering this unique opportunity are the Arizona Career Information System, the Arizona Department of Education, the Arizona State Occupational Information Coordinating Committee and the Arizona Business/Industry/Education Council.

The purpose of the training is to help counselors become familiar with the wide variety of job market and career information provided by the cooperating agencies, by the U.S. Labor Department and by other U. S. government organizations. More than that, however, the training is intended to show how the information can be used for student/client counseling. The training project is called Labor Market Information for Improved Career Decision Making (LMI/ICDM).

One week sessions will be offered in three locations during the month of June:

June 11-15, Tucson, Holiday Inn/Holidome
June 18-22, Phoenix, La Posada
June 25-29, Flagstaff, Little America

Training will occupy the full five days of each week and will include visits to local firms arranged by the Arizona Business/Industry/Education Council, in addition to workshop-style training. Counselors will be reimbursed for costs of attendance up to the limit imposed on state employees for meals and lodging while away from their usual employment site, as well as travel costs to the site at 20.5 cents per mile. Only 40 training slots are available for each session and attendance will be limited to the site nearest to the counselor's employment location. Counselors interested in attending who did not attend a similar session offered by LMI in 1981 or by the Arizona Career Information System (ACIS) in 1982-83 should contact DES Research Administration, 255-3871, to obtain applications. Or write, Arizona Department of Economic Security, Research Administration, 733A, P. O. Box 6123, Phoenix, Arizona 85005.

Instruction will be given by Betty Newlon, assistant professor and instructor of counseling, University of Arizona, as well as by members of the Labor Market Information and Arizona Career Information System program staff. Curriculum for the project was developed by the Labor Market Institute of North Texas State University under contract with the U.S. Department of Labor. Presentation of the material will be modified by the trainers to include a greater emphasis on local information, and as otherwise deemed appropriate based on the experience gained from former ICDM training sessions.

One counselor has said, "Every program area develops its own jargon to facilitate intra-program communication which, in time, impedes communication between programs." Here's an opportunity to become multi-lingual by learning to speak LMI, and to assist in its translation to clients. If you have ever been confused by the concepts of unemployment, underemployment or by the acronyms DOT, SIC, GOE, OOH or API, sign up now for the ICDM.

ANNOUNCEMENT

LMI, UI RESEARCH, ASOICC CONSCLIDATED INTO RESEARCH ADMINISTRATION

Effective April 1st, Labor Market Information, Unemployment Insurance Research and the Arizona State Occupational Information Coordinating Committee were consolidated into the Research Administration. This new administration is managed by Dan Anderson and is composed of all the existing staff from the consolidated units.

The Research Administration was established to:

> reduce fragmentation in the collection, analysis and dissemination of economic information;
>
> expand and enhance the exchange of technical expertise; and
>
> provide all users a single source to answer their information needs.

This consolidation will benefit both internal and external users of economic information. For staff, access to data will be greatly facilitated. This improved access to data and shared expertise will, in turn, result in better products for all users.

The new Research Administration consists of three major units:

(1) Data Systems contains those programs engaged chiefly in the production of data and statistical information -- Current Employment Statistics, Local Area Unemployment Statistics, Occupational Estimates, Occupational Forecasts, UI Reports, ES-202 and the Establishment Directory.

(2) Economic Analysis is responsible for economic forecasts, supply/demand estimates, publications and user training. ASOICC is also now a part of the Economic Analysis unit.

(3) Technical Services/Special Projects was established to give computer assistance, conduct contract research for the Bureau of Labor Statistics and undertake special projects. Unemployment Insurance Research is also a part of this unit.

NEW DEVELOPMENTS

Manufacturing - Several major employers have recently announced plans to build or expand plants in Chandler. The Motorola Government Electronics Group in Scottsdale will begin construction later this year on a 325,000-square-foot facility to house the Communication Division Aerospace Operations. Approximately 1,500 employees, most from the Group's Scottsdale plant, will occupy the Phase I part of the structure scheduled for completion in early 1986.

Intel Corp. will build a $75 million automated-assembly plant in Chandler that will employ 800 new employees, including 600 to be hired locally. The 50,000-square-foot plant will be used to implant silicon wafers into semiconductors and will be the first of its kind in the U. S. This plant is in addition to a $35 million expansion into Chandler announced in January that will bring Intel's components-assembly and testing operations from the Santa Clara, California headquarters.

Also increasing the size of its manufacturing operations in Chandler is Inertia Dynamics Corp., the Collinsville, Connecticut-based company which designs, engineers and manufactures a line of hand-held, gasoline-powered grass and weed trimmers. Employment, now at 200, is expected to increase to more than 300 during the company's peak production season.

Hamilton Aviation, a Tucson aircraft company, has won a contract with General Motors Corp. to retrofit Convair aircraft with a newly developed propeller-driven motor. These modifications will enable the company to increase its work force by 200 or more, the highest employment level the company has had in its 37 years of business.

Hyde Label, a California corporation, is relocating its regional manufacturing plant and warehouse to Phoenix. It will be the company's main plant in the Southwest. Hyde Labels makes pressure-sensitive labels.

Circuit Research Labs Inc. has moved to a new Tempe location as part of a general company expansion. The manufacturer of audio-transmission control systems will add 10 more employees for a total of 35. The move was made possible, according to company spokesmen, by a 40-percent second mortgage from the Office of Economic Planning and Development's Small Business Revitalization program. Valley National Bank provided a 50-percent first mortgage and the company supplied 10 percent.

Lunn Manufacturing, a Phoenix furniture manufacturer, has begun work on a $3 million plant that will allow it to more than double the size of its operation and work force. Employment will increase to 250 to 300 from 125 when the plant is completed in the fall. The facility is being financed with $2.7 million in industrial-development bonds from Maricopa County.

Arizona's only anhydrous ammonia-fertilizer plant has resumed operations after a two-year shutdown. The Arizona Agrochemical Company plant in Chandler can produce about half of the state's yearly agricultural need for anhydrous ammonia, which is a basic source of nitrogen for crops. The plant closed in 1981 due to high natural-gas prices and cheap imports of anhydrous ammonia, putting about 40 people out of work. A recent decision by the Arizona Corporation Commission enabled the plant to purchase natural gas at a price sufficiently low to resume profitable operation. The cost of natural gas is about 75 percent of the cost of making anhydrous ammonia.

Airlines - America West Airlines, the eight-month-old, Tempe-based airline, recently hired 160 customer-service representatives at a salary of $12,000 annually. During the six-to eight-week training course, the representatives will be trained in three areas: flight attendant, airport customer-service desk and reservation attendant. America West, which began operating in August, serves 14 Southwest cities and has 1,000 employees.

Tourism - Tucson-area hotels and resorts are booking more high-revenue meetings and conventions this year, according to a study by the Metropolitan Tucson Convention and Visitors Bureau. According to figures compiled by the bureau, during fiscal 1983, 18.4 percent of the conventions held were corporate. So far this year, 19.5 percent of the meetings held were corporate with medical meetings up to 13.6 percent from 11 percent last year.

Mining - Asarco has closed its Sacaton open pit mine near Casa Grande, resulting in the layoff of about 190 employees. According to company spokesmen, the closing is due to "exhaustion of copper-ore reserves minable by open-pit methods." The Sacaton open pit began production in 1974. The company had planned to shift the Sacaton operation to a nearby ore body and mine it by underground methods after the open pit was abandoned but underground preparation was suspended in 1981 because of low copper prices.

Meanwhile, Asarco has permanently recalled about 70 workers at its Mission Mine complex 30 miles south of Tucson. The move affected heavy equipment operators and mechanics who were recalled to strip the gravel and rock overlying the ore in order to maintain the normal volume of mined ore delivered to the Mission mill for processing. The recall brought employment of hourly workers at the Mission unit to about 420. Two years ago, before layoffs began, Asarco had 1,130 workers.

Layoffs - Mountain Bell is laying off employees in three Arizona communities. In Tucson, the equivalent of 75 full-time jobs will be lost. At least 34 workers will lose their jobs and other employees will be shifted to part time. In Phoenix, 80 workers who were brought to Arizona several months ago to help the utility keep pace with new-construction orders have been let go. Cuts are also planned for the Flagstaff office where four positions will be eliminated and 20 reduced to part time. Mountain Bell cites office mechanization and inadequate Arizona earnings for the layoffs.

Mayfair Molded Products, a manufacturer of plastics and boating items, will close its Tucson plant July 1, laying off 55 workers. More competition in the marine-products industry led to the company consolidation responsible for closure of the plant. Some Tucson-plant employees have been offered jobs at the company's headquarters in Schiller Park, Illinois, outside of Chicago.

Three Phoenix-area hospitals, responding to increased competition, a reduction in patients' length of stay and declining revenue, have laid off more than 50 employees. At John C. Lincoln Hospital and Health Center, about 20 employees were laid off and a total of 84 positions eliminated, mostly in nursing. At St. Luke's Hospital and Behavioral Health Center, 31 full-time workers were laid off. And at Phoenix Baptist Hospital, the education department was moved to the corporate offices with a loss of eight of 15 employees.

Training Conference - The Small Business Institute of Rio Salado Community College will conduct a Small Business Training Conference on June 18 at the Biltmore Hotel in Phoenix. The conference will consist of 22 different workshops designed to provide assistance to current and prospective small-business owners. Registration is $65.

Education - Glendale Community College dedicated a $250,000 Automotive Technology Complex that is expected to help students keep pace with rapid changes in automotive designs. The dedication coincided with an announcement by GM of a new program to train GCC students and find them jobs with GM dealers. The program -- known formally as the Automotive Service Educational Program -- will begin in August, with about 25 students participating in the first classes.

Apprenticeships - The Arizona Operating Engineers' Joint Apprenticeship and Training System will accept applications during May for apprenticeships. Applicants should be between 18 and 30 and have a high school education or GED certificate. Those interested may call the training system's Phoenix office at 252-6138 or the Tucson office at 623-2655.

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Arizona Labor Market NEWSLETTER

Arizona Department of Economic Security

Vol. VIII No. 6
June 1984

Unemployment Rate

Seasonally Adjusted
April *

ARIZONA	5.2%
Maricopa Co.	4.0%
Pima Co.	4.6%
UNITED STATES	7.8%

Consumer Price Index

National-March
1967 - Base Year

Wage Earner/Clerical Worker -	303.3
% Chg. Yr. Ago	3.5
All Urban -	307.3
% Chg. Yr. Ago	4.7

Phoenix-1st Qtr.
1977 - Base Year

All Urban -	177.4
% Chg. Yr. Ago	5.8

Producer Price Index

National-April *
1967 - Base Year

All Commodities-	311.4
% Chg. Yr. Ago	3.6
Finished Goods -	291.4
% Chg. Yr. Ago	2.9

* Preliminary

EDUCATION IN ARIZONA

JoAnn H. Wilson, editor

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ARIZONA'S COMMITMENT TO EDUCATION

Is Arizona serious about its commitment to education? Steps taken over the past two years seem to indicate that the governor, State Board of Education and the Arizona Legislature are, indeed, serious about raising education as a state priority, fully realizing that the investment made today will reap huge rewards for Arizona's future in the form of business and industry starts and relocations -- which mean jobs.

The most recent action taken by state leaders requires students to attend high school through the tenth grade. Requiring more than an eighth-grade education of Arizona citizens is a major step toward instilling the value of education in the minds of the children of this state. Accompanying this measure was another positive step, that of providing free textbooks at the high school level. Currently, students in grades one through eight receive their textbooks without cost under a constitutional requirement but must rent or purchase their books in high school, which sometimes provides an incentive for students to drop out.

With these two measures state leaders are sending a clear message to students, parents, and employers: Arizona as a state believes in education, knows it is a direct link to the economic well-being of the state, and is willing to take actions that begin the process of placing education at the top of the state's priority list.

Arizona is far from finished in its goal to upgrade the education system. Steps taken last year by the Arizona Board of Regents, at Governor Babbitt's request, to raise university admission requirements to four years of English, three years of mathematics (including algebra, geometry and a year beyond algebra), and two years of laboratory science; and the State Board of Education's move to increase high school graduation requirements to four years English, two years mathematics and two years science, helped to establish clear signals of expectations for young people and their parents. Other action is still necessary.

During the past year the governor has appointed three separate groups to study and make recommendations for education reform. The first of these groups, the Governor's Committee on Quality Education chaired by Dr. John Schaefer, issued a report entitled, Popular Concerns; Unpopular Choices, in November of 1983 (available through the Governor's office). The report issued 48 recommendations and cautioned that "apathy or inaction will only serve to guarantee mediocrity in our schools." The Committee spawned a task force that is currently studying teacher training at our state universities. Recommendations for improvement are expected in the near future.

A third task force was recently formed that will focus on the use of computers in the schools. In order to ensure that learning is keeping pace with technology, the task force will be developing guidelines for school districts on hardware and software selection, teacher training and curriculum development that integrates the computer.

Much remains to be done. Raising teacher salaries will help attract the "best and brightest" to the teaching profession (average starting pay is $13,841). The school year should be lengthened and the high school curriculum should be strengthened so that courses such as pom pom and student government do not carry the same weight as English and mathematics. Finally, changing some of the certification rules will allow specialists who have the subject knowledge and motivation to teach but who lack specific education courses to enter the high school classroom to teach in such shortage areas as science and math.

The accomplishment of many of these objectives will strengthen our education system which is the key to an adequately prepared work force.

Prudence Lee
Office of Governor

IS THE DECLINE IN PUBLIC SCHOOL ENROLLMENTS OVER IN ARIZONA?

Is the period of enrollment decline over in K-8 schools within Arizona? Has Arizona as a state returned to the days of growing school systems? The answer to both questions seems to be yes. Although the number of high school students may continue to drop for a few more years before it begins its ascent, a pattern of growth has been established in the primary grades. This growth is expected to be compounded by the increased migration into our state.

Recent data from the Arizona Department of Economic Security indicate a steady increase in the number of school-aged children in Arizona. In 1965, a total of 33,762 births were recorded in Arizona. For the most part, these births represented the kindergarteners of 1970. In 1982, there were 52,628 births, the future kindergarteners of 1987. The number of children born in Arizona between 1976-1982 alone increased by 31 percent. Children aged 5-14, or those in grades K-8, are expected to increase from 445,327 in 1984, to 540,306 in 1989, an increase of 94,979 or 21 percent in just five years. If the additional 94,979 students becomes a reality, in the state of Arizona there will be an added need for 3,392 educators over the next five years in our K-8 schools, based on a ratio of 28 students to 1 teacher.

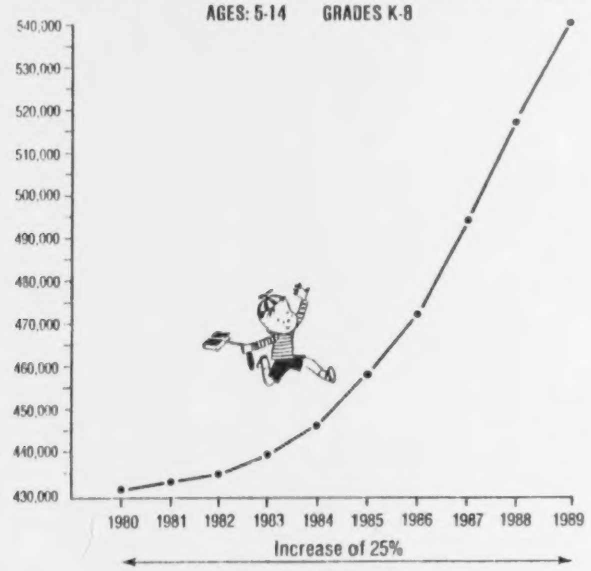
Since the 1972-73 school year, the number of teacher graduates has steadily declined in response to the tightening teacher job market. The fact that the number of teacher graduates is down by 60 percent and there is an anticipated increase in the number of school-aged children indicates that the mid-1980s hold much more promise for prospective teachers.

A study on the subject of teacher supply/demand was recently completed by the Office of Career Services at Arizona State University and is available upon request.

Raymond I. Castillo
Arizona State University

ACTUAL POPULATION DISTRIBUTION AND PROJECTIONS FOR ARIZONA CHILDREN

AGES: 5-14 GRADES K-8



SOURCE Arizona Department of
Economic Security
Population Statistics

TEACHING SALARIES IN ARIZONA

The year 1983-84 marked a dramatic change in national attention to public education with the release of several critical analyses, such as the highly publicized report, A Nation At Risk. The issues cover a broad spectrum -- curriculum, homework, discipline, testing, to name a few. However, it is the teaching profession itself that has become the focal point of our present concerns and hopes for the future.

Certainly, there is consensus among educators, government and business officials, and the public at large that the academic preparation of teachers must be improved, and something must be done to elevate the status of teaching as a career, in terms of respect and rewards for the profession. Compensation is a central issue in teaching, as in any other profession, when the brighest students are making their career choices, and when the best teachers are deciding whether to remain in the classroom or to move on to other endeavors.

The results of a recent public opinion survey, commissioned by the Arizona Education Association and conducted by an independent polling firm, Behavior Research Center of Phoenix, underscored the importance of adequate salary levels for teachers in the minds of Arizona's citizenry.

This telephone survey conducted last November indicated that, while the public has a generally favorable attitude toward the present quality of Arizona teachers and public schools, it is highly critical of the inadequate pay levels for teachers. Only one in five of those surveyed rated the pay of Arizona's teachers favorably.

When asked what needs to be done to attract more qualified people into teaching, two out of three answered "higher pay for teachers." The intensity of the public's sentiment that teachers' salaries must be upgraded was further reflected in a 68 percent favorable reading on starting salaries of $20,000.

How does the public's perception of the worth of teachers compare with the reality in Arizona? For the 1983-84 school year, the statewide average starting salary for a teacher with a bachelor's degree is $13,841.* Table 1 accompanying this report presents starting salaries in various other academic fields. Table 2 shows the average teacher's salary in Arizona over the past ten years before and after the effects of inflation. As Table 2 illustrates, the average salary of teachers in Arizona, adjusted for inflation, has actually declined over the past decade. This is despite the fact that for the 1983-84 school year, the average teacher has 9.5 years of experience in the classroom. Presently, comprehensive data are not available on the academic preparation of all Arizona teachers. However, the records that are available indicate that the average teacher, in addition to almost ten years of experience, has a master's degree.

All sectors seem to agree that teaching salaries must be raised as part of the effort to improve the quality of education. It is there, in the identification of the problem, that the commonality ends. The most highly debated solutions involve merit pay, incentive pay, master teacher programs, career ladders, etc. The details of these plans are lengthy and complex, and deserving of separate, in-depth discussion.

The premise to be understood and accepted before analyzing the alternatives is that the economics of the workforce in education have changed. Teaching has traditionally been a woman's occupation. In the past, it was one of the few choices open to those women wishing to pursue a professional career. Statistics continue to show that female-oriented occupations tend to be lower paying, not because of the intrinsic worth of the work itself, but because women in general command lower salaries.

Today, women college graduates have more career options, and many of our teachers, male and female alike, are leaving the classroom for more lucrative opportunities in other fields. To further complicate the situation, demographers are predicting an upcoming teacher shortage, particularly in

Arizona. If the public's call for excellence in education is to be answered, the quality and supply of teachers must be improved, factors which are inextricably linked to better compensation for the profession.

Suzanne Zimmer
Arizona Education Association

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*Teacher Salary Schedules and Statistics, Arizona Education Association Research Bulletin #55.

TABLE 1

AVERAGE STARTING SALARIES FOR GRADUATES WITH BACHELOR'S DEGREES

BACHELOR'S DEGREE IN--	AVERAGE EXPECTED STARTING SALARY
Electrical Engineering	$26,643
Chemical Engineering	26,164
Computer Science	25,849
Civil Engineering	21,266
Accounting	18,684
Financial Administration	18,122
Marketing, Sales	17,550
Business Administration	16,650
Personnel Administration	15,908
Hotel, Restaurant Management	15,447

Source: U.S. News & World Report, December 12, 1983.

TABLE 2

AVERAGE TEACHING SALARY IN ARIZONA (BASE YEAR = 1974-75)

	CURRENT DOLLARS	CONSTANT DOLLARS	LOST TO INFLATION
1974-75	$11,939	$11,939	0
1975-76	$12,842	$11,767	-$1,075
1976-77	$11,944	$10,347	-1,597
1977-78	$10,926	$ 8,892	-2,034
1978-79	$13,614	$10,290	-3,324
1979-80	$15,054	$10,228	-4,826
1980-81	$17,158	$10,268	-6,890
1981-82	$19,211	$10,416	-8,795
1982-83	$21,119	$10,790	-10,329
1983-84	$21,605	$10,694	-10,911

EMPLOYABILITY SKILLS

Looking for a job but don't know what you want to do? Or maybe you've heard that computer operating is a good field -- but what do computer operators do anyway? And what courses should you take to get the skills you need?

You may not be asking these questions, but thousands of high school students are faced with these and other questions about possible careers and Employability Skills may give them some answers. The Arizona Department of Education has embarked on a long-term project to provide career information to students that is directly related to the world of work. By the summer of 1985, a total of thirty-five occupational clusters will be explored with skills identified for specific occupations within these clusters. In an initial effort, thirty occupations were identified in seven occupational areas. Skills were then identified and validated by people working directly in the field. These skills are now being disseminated to high schools throughout the state. An example of the skills identified for one occupational cluster -- data processing -- accompanies this report.

To further help students with their career planning, Employability Skills are broken down into three areas: 1) Job Skills -- activities directly related to the performance of the job; 2) Related Basic Skills-- knowledges needed to perform the job; and 3) Responsibility Skills -- skills and attitudes related to the quality of the job.

These skills can help students with their career exploration and academic planning through describing activities involved in the occupation, and identifying possible courses to learn the knowledge needed on the job. The Employability Skills Charts are also designed to show relationships, where they exist, between occupations in a given occupational area. This allows the student to see possible career alternatives or advancement possibilities.

Today, Employability Skills are a valuable exploration tool for students. However, they are also designed to be a basic building block for the future. Employability Skills will be the direct link between skills taught in vocational education and skills used on the job. This link will help keep curriculum relevant, and will allow students to focus on areas needed to get the skills required for the occupation. By identifying "related basic skills," Employability Skills also emphasize the need for academic skills such as math, science and communication. This works as a two-way street, providing relevance to these areas for the student and allowing academic instructors to tie-in practical applications with lesson plans when possible.

Another future application of Employability Skills is in job transferability. Employability Skills will allow a job changer to explore areas which require his or her present job skills and will identify areas where future training is needed. Instead of starting at the beginning in an educational program or course, the job changer can build upon present skills and pick up only the specific skills and knowledges needed for the desired occupation. Employability Skills can therefore be a powerful tool as jobs emerge, become obsolete, or are reconstructed.

Employability Skills have exciting implications for the future in education. Like any information tool, however, they are not designed to be used in isolation. Their value lies in their use in conjunction with school curriculum guides and occupational resources such as the Arizona Career Information System, Labor Market Information and the many occupational and career handbooks and guides. By providing a viable link between employment and education, Employability Skills are a valuable information resource and planning tool.

Lauren DeVuyst
Arizona Career Information System

ARIZONA EMPLOYABILITY SKILLS--DATA PROCESSING

DATA ENTRY OPERATOR

Related Basic Skills

COMMUNICATIVE ARTS

- Follows written and verbal instructions.
- Asks appropriate questions to find essential information.

COMPUTER SCIENCE

- Uses vocabulary of computer industry.
- Recognizes use of telephone in relation to computer systems.
- Keeps up to date with new developments in the field.
- Describes data-entry form layout.
- Describes tape, disk, and card record format.

Job Skills

- Operates on-line and remote job-entry terminals, including key-to-disk and key-to-tape equipment.
- Enters data from source documents, according to given format.
- Verifies data and corrects errors.
- Adds and modifies data in data-entry records.
- Identifies, stores, and inventories data-entry supplies.
- Provides help to users of the service.
- Files reusable tapes, disks, or diskettes.
- Maintains production logs for information management.

Responsibility Skills

- Maintains confidentiality of data.
- Ensures that data entered is complete.
- Identifies and flags possible problems in input documents.
- Checks errors with supervisor or consultant.
- Assists with on-the-job training of other operators.
- Manages stress and frustration in dealing with people and systems.
- Learns and applies new technologies and procedures.
- Works well as a team member.

COMPUTER OPERATOR

Related Basic Skills

SCIENCE

- Describes principles of telecommunications and data-processing systems.

COMMUNICATIVE ARTS

- Reads computer operating instructions and manuals.
- Reads systems flowcharts and diagrams.
- Asks appropriate questions to find essential information.

COMPUTER SCIENCE

- Describes concepts and trends in data processing.
- Describes job-control language (JCL) and procedures.
- Identifies tape, disk, and card recording characteristics.
- Explains nature and function of computer terminals and related (peripheral) equipment.
- Describes timeshare procedures for system operations.
- Demonstrates proficiency in keyboard operation.

Job Skills

- Performs power-on, power-off and restart procedures.
- Mounts and dismounts disk packs and tapes.
- Transmits and receives data to and from remote sites.
- Copies computer files for backup.
- Loads, runs, and monitors programs, computer files, and data bases.
- Identifies error message and performs correction procedure.
- Maintains records and logs of computer usage.
- Files processed forms, punched cards, and job instruction sheets.
- Performs routine maintenance: for example, cleans equipment, clears paper jams, and changes ribbons.
- Maintains tape and disk pack library.
- Detects and locates causes of equipment problems.
- Maintains appropriate environmental conditions in computer room.

Responsibility Skills

- Starts procedures for equipment repair.
- Checks that all jobs are complete.
- Respects and protects client confidentiality and data security.
- Protects tapes, cards, and disk packs against loss or damage.
- Safeguards access to computer room.
- Manages time effectively.
- Manages stress and frustration in dealing with people and systems.
- Learns and applies new technologies and procedures.

COMPUTER PROGRAMMER

Related Basic Skills

MATHEMATICS

- Demonstrates mathematical skills required to write calculation routines.
- Explains and converts numbering systems: for example, decimal to binary.
- Demonstrates accounting skills needed to analyze and write programs.

COMMUNICATIVE ARTS

- Demonstrates written and verbal communication skills.

COMPUTER SCIENCE

- Describes concepts and trends in data processing.
- Explains impact of current developments on data processing: for example, telecommunications, robotics, and microcomputers.
- Identifies and selects the correct coding and computer reporting forms.
- Defines job-control languages, edit routines and program languages.
- Applies logic to reduce complex projects into manageable tasks.

Job Skills

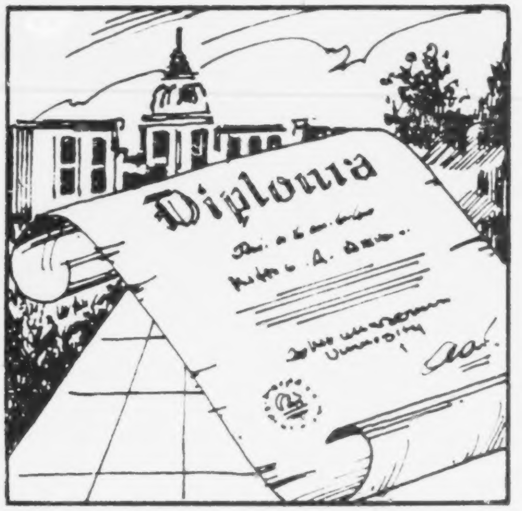
- Analyzes programming problems.
- Designs input and output formats.
- Programs for efficient use of computer time.
- Selects files and subroutines for use in programming.
- Develops flowcharts and programming diagrams.
- Uses appropriate computer programming languages: for example, COBOL and BASIC.
- Writes programs, using accepted coding standards.
- Tests (debugs) program, corrects errors, and makes revisions in program.
- Runs test data to verify program.
- Prepares program documentation.
- Prepares operator and user instructions.
- Performs program maintenance and modifications.

Responsibility Skills

- Respects and protects client confidentiality and data security.
- Protects tapes and programs against loss and damage.
- Communicates effectively with users to clarify data processing needs and specify solutions.
- Consults with users to verify initial results.
- Manages time effectively.
- Works well as a team member, and adapts to changes.
- Manages stress and frustration in dealing with people and systems.
- Learns and applies new techniques and procedures.

LIBERAL ARTS GRADUATES AND THE EMPLOYMENT MARKET

Every year college placement offices across the country are besieged by the media to answer questions on the hiring picture for liberal arts graduates, the assumption being that these graduates are largely unemployable. This assumption, however, is unfounded for there is good evidence to believe that liberal arts graduates do, in fact, find jobs and reach pinnacles of success. But there are obstacles along the way.



One obstacle is defining just what a liberal arts graduate is. Presumably, it is a student who has completed a course of study in the College of Liberal Arts, which at Arizona State University includes mathematics, physics, chemistry and biology for a total of 24 different subject areas. It can be very different in other universities and labeled with various titles such as "Letters and Science" and "Arts and Science." However, the negative assumption, which is very false, is that the course of study has consisted of easy subjects, none of which are employment-related.

This false assumption is compounded when new graduates apply to employers, introducing themselves by their majors. At the bachelor's level, one does not become a philosopher, nor a political scientist, nor a historian. And, in the same vein, employers do no file their jobs under college majors. Nor do they recognize when seeing application blanks listing English, French, geography or anthropology majors what skills the individual has acquired in that program, or where such skills can be used in the organization.

So the problem is also communication. If, upon graduation, students who have majored in areas that are not specific to employment could transfer to the application form the aptitudes, abilities and skills they have learned not only from their academic studies but also from part-time work, life experience and volunteer and community service, an employer could then project a possible assimilation of this candidate into the organization. It is a pattern of our culture that we are very mobile in the work force. The majority of career paths are without names and are, in effect, a series of job experiences. It would be difficult to prepare academically for a specific route to the majority of professional-level positions. Even individuals headed for specific areas of employment such as accounting, engineering, marketing and nursing frequently experience career changes that take them far afield of their original plans. For these reasons, a college and university education cannot be viewed from the standpoint of preparation for the initial job placement so much as the development of skills that offer the potential for growth and change.

Unfortunately, the emphasis today has been more and more on the short-range or immediate-results orientation. College majors are measured with the "Can-it-get-me-a-job?" gauge -- very short-sighted from the standpoint of the ever-changing economy and technology. First-year college students declare majors and career goals that may be non-existent by the time they graduate; certainly, demand will have changed -- sometimes upward, but sometimes down.

Pressure comes from parents, sources of college financing and, especially, employers. While it is understandable that employers have specific needs in some areas, job requirements too often are tied to particular majors, while other needs often developed in the liberal arts areas are ignored. How often do employers despair the lack of written and communication abilities but continue to leave the mention of them out of job listings? How many customers are lost by individuals with poor human relations skills? Logic, organization, creativity and problem solving are not confined to certain majors.

But employers are not solely to blame for this lack of insight. It is up to the individuals who choose majors not easily identified with employment to enhance their opportunities with some pragmatic subject matter and work experience while in college. It is also up to them to become aware during their college years of the realities of the needs of employers and to identify and develop necessary skills before embarking on an employment search.

The fact is that upon graduation, those students with majors specific to employment do get hired first. About six months later, however, the employment ratio has evened out. It may have taken six months of frustration while they figure out where they fit into the system but, in the end, liberal arts majors do very well in the hiring process. It may take them a little longer, but they have farther to go. All the way to the top.

Diana Regner
Arizona State University

TRAINING ARIZONA WORKERS FOR THE HIGH TECH AGE

Through the exemplary efforts of the Governor's office and local economic development groups, and because of our Arizona lifestyle, record numbers of new businesses are moving to Arizona. Many of these businesses exemplify the transformation to an information society described by John Naisbitt in his widely read Megatrends. Naisbitt predicts that in the next decade, many employees will be employed in jobs that do not even exist today. He also points out that the majority of the population will have at least three careers. This implies that the employing firm, a governmental agency or the public education system will train the same person again and again.

How will these training needs be met? Two schools of thought seem to be emerging. Proponents of the first believe that we should insist that the high schools and community colleges teach exceptionally well the basics of reading, writing, mathematics and communicating. This theory holds that mathematics and principles in physics are the language of high technology and that skills in communication are essential to keep up with and understand technology. Since most of the larger companies have sophisticated training programs for employees, it is argued, all that is needed is for the new hires to have the basic skills, plus a good attitude about learning and job responsibilty.

On the other hand, both large and small business are demanding more from governmental and public agencies. They expect a better product and more service for the taxes they pay. Smaller businesses have less margin of profit and are hard pressed to spend money for employees that are not productive and who need extensive training after they are hired. They need employees who are job-ready.

Education systems are changing to meet these new demands. Parents and citizen advisory groups are meeting all over our state to raise questions about the type and quality of education. The Arizona State Legislature is passing laws to change outdated funding formulas to provide incentives to colleges, universities and public schools to begin new vocational training programs. Private industry councils, JTPA, vocational rehabilitation and public school administrators are requiring more accountability from those who train prospective employees.

The major question is: Can we change our public education system fast enough to teach the basic three Rs and technology? The answer is: Probably.

Unfortunately, change in a society as complex as ours is difficult. Teachers are used to parental attitudes that do not require discipline or a respect for learning at home. Parents expect the schools to make a super-achiever out of a child they have ignored for 10 years. Public school administrators have difficulty in terminating lazy, inefficient teachers because of tenure laws and the ease in which teachers can file and win lawsuits if they are fired. Teachers, parents, board and civic groups have difficulty in firing administrators who refuse to change outdated ways.

Public pressure is building to modernize vocational training curriculum and to cause public training agencies to respond to business training needs. Arizona's state community college system is responding:

- The Aravaipa Campus of Central Arizona College has developed an organization to provide skills training for the major employers in Pinal County.
- Rio Salado College, a unit of the Maricopa Community College District, has provided in-plant training for Phoenix industries for the past five years.
- Arizona Western Community College at Yuma has exemplary programs in welding, agriculture, computer science and automotive mechanics.
- Northland Pioneer College has been a leader in developing training laboratories in trailers that can be moved from one location to another. The cosmetology, automotive and welding labs can be moved to different towns in the northern counties to train those who need entry-level job skills or retraining.
- Cochise College provides vocational skills training at Sierra Vista and at the Douglas Campus. This college has the only occupational training program for the air-transportation industry.

In 1981, Pima Community College developed the Pima College Institute. The Institute has two major funtions: to train adults for entry-level positions and to develop training programs to upgrade persons who are already employed. Like other community colleges, the Pima Institute has trained staff who meet with business leaders and advisory committees to develop programs that are industry based. These training programs provide state-of-the-art instruction and teach skills that are necessary for getting and holding a job.

A unique feature of the Pima College Institute is that it hires staff from industry on a temporary basis to teach the skills. This arrangement allows the college to hire persons from the industry to teach. This provides up-to-date instruction and does not commit the colleges to long-term arrangements with instructors.

Whenever possible, the skills training is done in the plant on equipment that will be used on the job. Again, this arrangement can be terminated when sufficient employees are hired. Also, it provides an incentive for cross training or advanced training to those persons who hold lower-paying positions.

Pima College and the other community colleges in the state can respond quickly to industry training needs. The length of training can vary from 11 weeks to 12 months, depending on the skills needs. Colleges are funded by the counties and the state to provide skills training. In most instances, these state and county funds can be used to pay the cost of training. The community colleges can train any skill needed by Arizona industries.

Try us, you'll like the product.

James E. Gibson
Pima Community College

SOME CHANGES ARE FOR GOOD -- VOCATIONAL EQUITY IN ARIZONA

Vocational equity: What is it? How many people really understand its mission and value the impact it can have on students and society as a whole? Since 1976, when the vocational education amendments were first passed to promote equal opportunities in all vocational programs, equity specialists have been working to communicate the intent and purpose of this legislation. There are three major areas being addressed at the secondary and postsecondary levels:

1. How to eliminate sex role stereotyping in vocational programs.
2. How to serve displaced homemakers and other special groups.
3. How to provide support services for women in nontraditional fields.

In Arizona, there are three statewide equity projects for 1983-84. New Frontiers, located in Tucson, provides statewide technical assistance to school districts through seminars, workshops, materials and student forums. Its major purpose is to eliminate stereotyping in vocational programs and to provide support to people who choose a nontraditional career. One of its recent projects was a three-part seminar offered to IBM employees on "Maximizing Parental Involvement in Career Planning." Particular attention was paid to helping parents assist their children in making informed career choices by taking into account values, interests, skills and current labor market information.

PHASE, also located in Tucson, is one of two programs serving displaced homemakers. Designed to help women who must return to the job market after being full-time homemakers, it provides counseling, job readiness skills and placement services. In addition, the program trains counseling interns from the University of Arizona to better serve the growing population of reentry women and displaced homemakers. During the six years of its existence, PHASE has served 1,375 women. Of those who have completed the full program, 75 percent have found work and about 20 percent have decided their interests were in areas that required additional training. They have enrolled in universities or other training programs and PHASE has frequently helped them to secure financial aid.

The other program assisting displaced homemakers is in Phoenix at Glendale Community College. For the past two years, this program has sponsored a two-day statewide workshop offering agencies and professionals strategies and skills for improving services to their female clients. In addition, it provides counseling and support services to the students on campus.

The equity effort, however, is not limited to these projects. Support is available to counselors, teachers, administrators, students and community agencies in the form of conference and classroom presentations, publications, the newsletter CONNECTIONS, the resource guide Preparing for a Nontraditional Job and training institutes and staff development activities. A survey in January of rural community colleges revealed that enrollment increases in these institutions are primarily women in the 30-45 year age group and that limited services are available in the rural areas for the displaced homemaker. The Office of Equal Vocational Opportunities of the Arizona Department of Education is currently exploring ways to serve the needs of these women.

Why is there such an emphasis on equity both at the federal and state levels? The main reason is to ensure that all students are encouraged and supported in their career choice. Historically in vocational education, males and females have been clustered into very traditional classes, i.e., females into home economics and health, males into trade and industry or agriculture. Our society in reinforcing these choices failed to acknowledge that people's skills and talents may not fall within this narrowly defined range of choices. Also, for the female, these limited choices offered less in terms of financial reward and/or career advancement.

Vocational equity encourages students to explore both traditional and nontraditional options in order to identify which is best suited to them. Vocational equity also assists in breaking down the attitudinal barriers that sometimes are subtle deterrents to a nontraditional job. Finally, vocational equity assists people to make nonstereotyped life choices that will be financially and personally rewarding and will contribute positively to our society.

According to data compiled in a status report on male and female students in Arizona vocational education, enrollment is increasing for nontraditional areas. Each of the seven program areas shows some change. Especially significant is the 11 percent rise of males in health occupations and seven percent rise of females in trade and industry. These changes are reflected in the work place too. In 1970 in Arizona, less than one percent of bus drivers and bakers were females but in 1980 over 40 percent of the workers in these jobs were women. Today it is not so unusual to see a male nurse or a female construction worker. If you talked to these people about their work, you would hear comments like challenging, satisfying, rewarding, exciting.

Our society is changing and what worked 25 years ago does not necessarily hold true today. Vocational equity is helping the education system prepare for and adapt to these changes. For the more tnan 88,000 Arizonans working in nontraditional jobs, these changes are for good.

Jenny L. Erwin
Arizona Department of Education

PROPRIETARY SCHOOLS EDUCATE FOR JOBS

There are more than 200 proprietary (for-profit) schools operating in Arizona. They vary from small, single-owner institutions offering instruction in a single specialty to a large college-level institution managed by the proprietary education subsidiary of a major corporation.

Proprietary vocational schools have been part of our state's educational heritage for nearly 100 years. In 1889, Colonel Edwin Lamson founded a Phoenix secretarial school that has since grown to offer a broad range of business and secretarial programs on three separate campuses.

Programs offered by proprietary schools can range from a few weeks to several years. Most, however, require more concentrated studies over a shorter period of time than corresponding programs offered by public education. In general, classes in proprietary schools are marked by a no-nonsense approach which emphasizes attendance, punctuality and work habits to quickly teach students the skills needed to get a specific job.

This interest in training for jobs is apparent in the programs proprietary schools offer. Table 1 contains the top 20 occupations in Arizona based upon numbers employed. Of these 20 occupations, only two -- elementary school teachers and professional nurses (RNs) -- require college training, and specialized education in nearly half of these 20 fields is available at one or more of Arizona's proprietary schools.

According to statistics gathered by the Arizona Commission for Postsecondary Education, there has been a steady increase in the number of graduates from Arizona proprietary schools (see Table 2). During the past four years, for example, the number of graduates from trade and technical schools increased 96 percent; from barber colleges and cosmetology schools, 70 percent; from health schools, 458 percent; and from business schools, 301 percent.

JoAnn H. Wilson
Labor Market Information

TABLE 1

TOP 20 ARIZONA OCCUPATIONS

OCCUPATION	NUMBER EMPLOYED IN ARIZONA, 1983
1. Sales Clerks (exclude Cashiers)	34,482
*2. General Clerks, Office	26,899
*3. Secretaries	26,886
4. Janitors, Porters and Cleaners	26,470
*5. Waiters and Waitresses	21,354
6. Elementary School Teachers	19,567
7. Cashiers	18,461
8. Food Preparation and Serviceworkers, Fast Foods	15,403
9. Nurses, Professional	15,247
10. Electrical and Electronic Assemblers	15,060
*11. Truck Drivers	14,578
12. Supervisors, Nonworking, Blue Collar	12,166
*13. Typists	11,303
*14. Managers, Store	10,803
15. Stock Clerks	10,001
*16. Automotive Mechanics	9,396
*17. Bookkeepers, Hand	9.233
18. Delivery and Route Workers	9,147
19. Maintenance Repairers, General Utility	9,109
*20. Accounting Clerks	9,109

*Training available at Arizona proprietary school/s.

NOTE: "All Other" headings were disregarded in compiling table (e.g. "All other Managers and Officers," "All Other Sales Workers").

SOURCES: Labor Market Information, Occupational Employment Statistics (OES) Unit and Arizona Commission for Postsecondary Education, Education After High School in Arizona, 1984.

TABLE 2

GRADUATES FROM ARIZONA PROPRIETARY SCHOOLS
1979-80 TO 1982-83

SCHOOL TYPE	1979-80	1980-81	1981-82	1982-83
Trade and Technical Schools	3,623	3,859	4,596	7,107
Flying Schools	305	216	2,410*	2,852*
Barber Colleges and Cosmetology Schools	753	1,068	1,217	1,278
Modeling and Fine Arts Schools	449	997	3,390	1,315
Health Schools	575	703	1,490	3,207
Business Schools	905	2,004	4,209	3,631
Real Estate Schools**	4,353	4,736	19,173	15,188

*Includes large proportion of non-resident students.

**Includes large proportion of continuing-education students.

Source: Arizona Commission for Postsecondary Education, Annual Survey of Arizona Postsecondary Institutions (voluntary).

ARIZONA'S POSTSECONDARY STUDENTS--THEIR CHARACTERISTICS, INCOME AND EXPENDITURES

No matter which type of postsecondary school a student in Arizona wishes to attend -- public university, private college, community college or proprietary school -- the total cost is likely to be quite high. This is according to a recently released study of students at 36 Arizona postsecondary schools surveyed in the spring of 1983.*

The researchers found that the sum of the direct school costs plus living expenses plus transportation for students at these beyond-high-school institutions in our state averaged $6,917 per year. The yearly averages varied from $5,985 at a typical community college to $6,724 at a public university, $8,835 at a one-year proprietary school program, and were topped by an average cost of $11,226 at the private colleges.

These findings are just a few of the new insights this report provides on Arizona's postsecondary students--their characteristics, income and expenditures.

STUDENT CHARACTERISTICS

A total of 1,694 Arizona students provided useable responses to the survey. Most of the respondents were of "traditional" college age (18-23), but the community colleges and proprietary schools had substantial proportions of older students. Nearly all the respondents were Arizona residents. Most were single and eight of 10 were Caucasians. The Native American, Black and Hispanic students had the lowest parental income levels and they tended to go to community colleges and proprietary schools. The Caucasians and Asians had higher levels of parental income and their primary choices were four-year public universities and private colleges.

Reasons the students gave for choosing their school primarily centered upon the academic program with cost factors close behind. At least two-thirds of the students preferred the school they were then attending, except for those in the community college category where 60 percent said they would prefer to go to a four-year university.

STUDENT INCOME

A major survey objective was to obtain data about where Arizona's postsecondary students get the money they need to go to school. Therefore, the sample was selected to include all types of students whether they were receiving financial aid or not. The results clearly show that, for the majority of students in the survey, funds from the various financial aid programs were extremely important to them.

Overall, two-thirds of the respondents had received funds from one or more of the financial aid programs, but the variation among categories was considerable and was directly related to school cost. Only 57 percent of the community college students had received aid, but this percentage rose to 64 percent at the public university, to 81 percent at the proprietary school, and to a high of 88 percent at the private college. Of the sources of financial aid funds, loans were most important followed by grants and then scholarships and fellowships, Social Security and Veteran's Administration benefits. Many of the students (43 percent) had loans to repay, and this proportion was especially high at the more costly private colleges and proprietary schools.

Self-help sources included parental contributions for about half of the students, personal savings for about 40 percent and wages from work for about 60 percent. The vast majority of respondents indicated that, if pressed financially, they would find ways to remain in school. The "ways" included additional employment, loans and help from parents.

STUDENT EXPENDITURES

The costs students must bear are shown in the accompanying table. The data for the community colleges are averages of all such schools in the survey. The expenses shown for the public universities are for the middle-cost school of the three institutions while the costs shown for the private colleges are a weighted average of the three private schools included in the survey. The proprietary school costs given in the table are for one of the medium-cost schools. At the most expensive proprietary schools, the total cost exceeded $10,500. The data in the "average for all students" column are for the total number of students at all schools in the survey.

The major variation was in the direct school costs where tuitions ranged from less than $300 to almost $6,000 per year. The most costly living-expense item was for room and board which ranged from a low of $2,500 to a high of $3,400. Other living expense items such as recreation, clothes, laundry and personal care were fairly consistent from one type of school to another.

The amount the students said they spent for transportation was surprisingly high. There was a remarkable similarity of these costs reported by all but the private college. This is also a cost which many people do not consider when they plan for their postsecondary education expenses.

Even though many of the amounts the students gave in this survey were estimates, they were consistent enough to be considered credible. They show, without any doubt, that Arizona's postsecondary schools have gone well beyond the inexpensive levels of just a few years ago. The responses also show that the students of Arizona consider their educational goals to be important enough to be willing to pay these high costs to attain them.

Dr. Ross Erbschloe
Arizona Commission
for Postsecondary
Education

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*"Income and Expenditures of Arizona Postsecondary Students," by Dr. Ross Erbschloe, Executive Director, Arizona Commission for Postsecondary Education, and Dr. Robert Fenske, Professor of Higher Education, Arizona State University. A limited number of copies of the full report is available. Contact the Arizona Commission for Postsecondary Education at 1937 West Jefferson, Phoenix, Arizona 85009, or call (602) 255-3109.

ARIZONA POSTSECONDARY STUDENT EXPENSES
1983

Expense Group	Public University	Private College	Community College	Proprietary School	Average for all Students
Direct School Costs	$1,554	$ 4,771	$ 570	$3,357	$1,729
Living Expenses	3,598	4,567	3,915	3,897	3,544
Transportation	1,572	1,888	1,500	1,581	1,644
Total Costs	$6,724	$11,226	$5,985	$8,835	$6,917

Arizona Labor Force and Employment

April 1984 (in thousands)

	ARIZONA			Amt Change	
	Apr.* 1984	Mar. 1984	Apr. 1983	Mar. to Apr.	1983 to 1984
TOTAL CIVILIAN LABOR FORCE	1406.2	1412.6	1380.0	-6.4	+26.2
Total Unemployment	71.2	76.1	134.4	-4.9	-63.2
Rate	5.1	5.4	9.7	---	---
Rate (Sea. Adj.)**	5.2	5.5	10.0	---	---
Total Employment	1335.0	1336.5	1245.6	-1.5	+89.4

THE ABOVE LABOR FORCE STATISTICS SHOUL

NONAGRICULTURAL WAGE AND SALARY EMPLOYMENT BY PLACE OF WORK

TOTAL WAGE AND SALARY	1138.2	1135.1	1061.8	+3.1	+76.4
Manufacturing	165.4	165.0	152.2	+0.4	+13.2
Durable Goods	129.7	129.3	118.2	+0.4	+11.5
Stone, Clay and Glass	7.0	6.8	5.8	+0.2	+1.2
Primary and Fabricated Metals	14.9	14.9	14.5	+0.0	+0.4
Primary Metals	6.3	6.4	6.7	-0.1	-0.4
Fabricated Metals	8.6	8.5	7.8	+0.1	+0.8
Machinery	64.9	64.7	60.5	+0.2	+4.4
Other Durable Goods	42.9	42.9	37.4	+0.0	+5.5
Aircraft and Missiles	19.1	18.9	17.3	+0.2	+1.8
Lumber and Wood Products (Except Furniture)	6.7	6.9	5.8	-0.2	+0.9
All Other Durable Goods	17.1	17.1	14.3	+0.0	+2.8
Nondurable Goods	35.7	35.7	34.0	+0.0	+1.7
Food and Kindred Products	7.7	7.6	7.9	+0.1	-0.2
Apparel	5.4	5.5	5.0	-0.1	+0.4
Printing and Publishing	12.8	12.8	12.0	+0.0	+0.8
All Other Nondurable Goods	9.8	9.8	9.1	+0.0	+0.7
Mining and Quarrying	13.6	13.2	14.4	+0.4	-0.8
Copper Mining	10.7	11.0	11.5	-0.3	-0.8
Other Mining and Quarrying	2.9	2.2	2.9	+0.7	+0.0
Construction	87.8	86.7	72.2	+1.1	+15.6
Trans., Communications, and Public Utilities	59.0	59.2	56.5	-0.2	+2.5
Transportation	24.9	25.2	23.5	-0.3	+1.4
Communications and Public Utilities	34.1	34.0	33.0	+0.1	+1.1
Trade	271.0	270.2	256.2	+0.8	+14.8
Wholesale Trade	54.3	54.4	50.9	-0.1	+3.4
Retail Trade	216.7	215.8	205.3	+0.9	+11.4
General Merchandise and Apparel	36.2	36.3	35.2	-0.1	+1.0
Food Stores	34.3	34.3	33.0	+0.0	+1.3
Automotive and Service Stations	25.1	24.9	23.8	+0.2	+1.3
Eating and Drinking Places	77.4	76.8	72.6	+0.6	+4.8
Other Retail Trade	43.7	43.5	40.7	+0.2	+3.0
Finance, Insurance, and Real Estate	68.6	68.5	64.7	+0.1	+3.9
Services and Miscellaneous	257.1	256.0	236.5	+1.1	+20.6
Hotels and Other Lodging Places	28.0	27.9	25.3	+0.1	+2.7
Business Services	53.0	52.0	45.1	+1.0	+7.9
Health Services	67.2	67.5	64.1	-0.3	+3.1
Other Services	108.9	108.6	102.0	+0.3	+6.9
Government	215.7	216.3	209.1	-0.6	+6.6
Federal	39.5	39.4	38.2	+0.1	+1.2
State and Local	176.2	176.9	170.9	-0.7	+5.3
School	109.5	110.5	105.5	-1.0	+4.0

* Preliminary
** Normal seasonal variations have been eliminated to reflect underlying economic trends.
NOTE--Data have been adjusted to the 1972 Standard Industrial Classifications (SIC).

April 1984 (in thousands)

MARICOPA COUNTY					PIMA COUNTY				
			-- Amt Change --					-- Amt Change --	
Apr.* 1984	Mar. 1984	Apr. 1983	Mar. to Apr.	1983 to 1984	Apr.* 1984	Mar. 1984	Apr. 1983	Mar. to Apr.	1983 to 1984
888.7	892.0	848.2	-3.3	+40.5	259.4	260.7	258.2	-1.3	+1.2
34.4	37.0	64.2	-2.6	-29.8	11.6	12.9	25.4	-1.3	-13.8
3.9	4.1	7.6	---	---	4.5	4.9	9.8	---	---
4.0	4.2	7.8	---	---	4.6	5.0	10.1	---	---
854.3	855.0	784.0	-0.7	+70.3	247.8	247.8	232.8	+0.0	+15.0

'NOT BE USED FOR ECONOMIC ASSISTANCE PROGRAMS.

NONAGRICULTURAL WAGE AND SALARY EMPLOYMENT BY PLACE OF WORK

742.2	740.3	681.5	+1.9	+60.7	209.6	209.0	197.6	+0.6	+12.0
119.7	119.5	109.4	+0.2	+10.3	27.9	27.9	26.3	+0.0	+1.6
94.9	94.6	86.2	+0.3	+8.7	23.1	23.2	21.6	-0.1	+1.5
4.3	4.1	3.5	+0.2	+0.8					
9.5	9.4	9.4	+0.1	+0.1					
52.0	51.9	47.8	+0.1	+4.2					
29.1	29.2	25.5	-0.1	+3.6					
24.8	24.9	23.2	-0.1	+1.6	4.8	4.7	4.7	+0.1	+0.1
5.2	5.1	5.5	+0.1	-0.3					
3.2	3.3	2.6	-0.1	+0.6					
9.4	9.4	8.8	+0.0	+0.6					
7.0	7.1	6.3	-0.1	+0.7					
0.7	0.7	0.6	+0.0	+0.1	3.7	3.6	3.8	+0.1	-0.1
61.2	60.5	50.3	+0.7	+10.9	17.9	17.6	13.6	+0.3	+4.3
37.9	38.2	35.9	-0.3	+2.0	9.0	9.0	8.7	+0.0	+0.3
16.5	16.9	15.4	-0.4	+1.1	4.0	4.0	3.7	+0.0	+0.3
21.4	21.3	20.5	+0.1	+0.9	5.0	5.0	5.0	+0.0	+0.0
184.8	184.5	172.9	+0.3	+11.9	44.1	43.6	42.9	+0.5	+1.2
43.0	42.7	40.4	+0.3	+2.6	6.4	6.3	5.8	+0.1	+0.6
141.8	141.8	132.5	+0.0	+9.3	37.7	37.3	37.1	+0.4	+0.6
23.2	23.5	22.3	-0.3	+0.9	6.6	6.5	6.6	+0.1	+0.0
22.1	22.0	21.0	+0.1	+1.1	5.5	5.5	5.5	+0.0	+0.0
16.1	16.0	15.0	+0.1	+1.1	4.0	4.0	4.0	+0.0	+0.0
49.7	49.8	46.3	-0.1	+3.4	14.2	13.9	13.7	+0.3	+0.5
30.7	30.5	27.9	+0.2	+2.8	7.4	7.4	7.3	+0.0	+0.1
53.7	53.6	50.6	+0.1	+3.1	9.6	9.5	8.9	+0.1	+0.7
175.1	174.5	158.2	+0.6	+16.9	48.5	48.5	45.9	+0.0	+2.6
16.6	16.8	14.9	-0.2	+1.7	4.6	4.9	4.1	-0.3	+0.5
43.9	43.0	37.2	+0.9	+6.7	7.5	7.4	6.4	+0.1	-1.1
45.5	45.7	42.9	-0.2	+2.6	13.9	13.9	13.7	+0.0	+0.2
69.1	69.0	63.2	+0.1	+5.9	22.5	22.3	21.7	+0.2	+0.8
109.1	108.8	103.6	+0.3	+5.5	48.9	49.3	47.5	-0.4	+1.4

-- Prepared by Labor Market Information, Research and Analysis (CPS-MOD, 1/84)

NONMETROPOLITAN COUNTIES LABOR FORCE AND EMPLOYMENT

April 1984 (Preliminary)

	Apache	Cochise	Coconino	Gila	Graham	Green-lee	La Paz
TOTAL CIVILIAN LABOR FORCE*.	14,250	28,300	35,100	13,650	7,450	3,825	4,600
Total Unemployment	1,725	2,100	2,225	1,775	650	225	525
Rate	12.1%	7.4%	6.3%	13.0%	8.7%	5.9%	11.4%
Rate (Seas. Adj.)**. . . .	12.8%	7.5%	6.6%	13.5%	9.1%	6.2%	-INA-
Total Employment	12,525	26,200	32,875	11,875	6,800	3,600	4,075

THE ABOVE LABOR FORCE STATISTICS SHOULD NOT BE USED
FOR ECONOMIC ASSISTANCE PROGRAMS

	Apache	Cochise	Coconino	Gila	Graham	Green-lee	La Paz
TOTAL WAGE AND SALARY. . . .	13,100	21,375	30,975	9,575	4,300	3,125	2,325
Manufacturing.	650	1,500	2,450	1,450	100	325	100
Mining and Quarrying	50	350	50	1,350	75	1,675	0
Construction	1,500	875	1,050	450	125	50	50
Trans., Comm., & Pub. Util..	1,725	1,300	2,575	275	150	50	50
Trade.	1,050	4,375	6,975	1,700	1,150	350	800
Fin., Insur., & Real Estate.	150	625	600	225	100	25	100
Services and Miscellaneous .	3,225	2,625	7,125	1,500	725	100	650
Government	4,750	9,725	10,150	2,625	1,875	550	575

	Mohave	Navajo	Pinal	Santa Cruz	Yavapai	Yuma
TOTAL CIVILIAN LABOR FORCE*.	21,850	24,375	30,150	8,400	30,625	35,525
Total Unemployment	2,275	2,325	3,300	975	2,625	4,450
Rate	10.4%	9.5%	10.9%	11.6%	8.6%	12.5%
Rate (Seas. Adj.)**. . . .	10.3%	9.8%	11.3%	14.3%	8.9%	-INA-
Total Employment	19,575	22,050	26,850	7,425	28,000	31,075

THE ABOVE LABOR FORCE STATISTICS SHOULD NOT BE USED
FOR ECONOMIC ASSISTANCE PROGRAMS

	Mohave	Navajo	Pinal	Santa Cruz	Yavapai	Yuma
TOTAL WAGE AND SALARY. . . .	15,000	17,225	22,675	7,425	16,850	22,450
Manufacturing.	2,125	1,800	2,550	850	2,075	1,725
Mining and Quarrying	250	1,075	3,975	25	350	50
Construction	850	600	600	225	975	1,475
Trans., Comm., & Pub. Util..	925	1,575	1,000	550	875	1,000
Trade.	4,250	2,975	3,800	3,150	4,475	7,100
Fin., Insur., & Real Estate.	725	275	725	225	725	750
Services and Miscellaneous .	2,800	4,450	2,150	1,050	3,125	3,925
Government	3,075	4,475	7,875	1,350	4,250	6,425

*Adjusted to the Current Population Survey (CPS) to reflect place of residence.
**Seasonal adjustment not applicable for economic assistance programs.

NOTE--Series for Yuma and La Paz counties start January 1983. Data are not comparable to any past series.

ARIZONA LABOR FORCE AND EMPLOYMENT FOR ECONOMIC ASSISTANCE PROGRAMS

March 1984 (Final)

County	Civilian Labor Force	Employment	Unemployment	Rate
Statewide	1,412,560	1,336,510	76,050	5.4%
Apache	14,505	12,604	1,901	13.1
Cochise	28,494	26,318	2,176	7.6
Coconino	34,690	32,079	2,611	7.5
Gila	13,843	11,958	1,885	13.6
Graham	7,494	6,799	695	9.3
Greenlee	3,891	3,637	254	6.5
La Paz	4,696	4,124	572	12.2
Maricopa	891,996	855,013	36,983	4.1
Mohave	21,907	19,420	2,487	11.4
Navajo	24,491	21,872	2,619	10.7
Pima	260,719	247,814	12,905	4.9
Pinal	30,383	26,982	3,401	11.2
Santa Cruz	8,603	7,550	1,053	12.2
Yavapai	31,573	28,639	2,934	9.3
Yuma	35,275	31,701	3,574	10.1

Data have been adjusted to the 1972 Standard Industrial Classification (SIC). These figures are the only official BLS labor statistics to be used for revenue sharing purposes. They are not designed to be used as economic indicators. Note: Series for Yuma and La Paz counties start January 1983. Data are not comparable to any past series.

ESTIMATED HOURS AND EARNINGS OF PRODUCTION WORKERS IN SELECTED INDUSTRIES IN ARIZONA

April 1984

INDUSTRY	AVERAGE WEEKLY EARNINGS			AVERAGE WEEKLY HOURS			AVG. HOURLY EARNINGS		
	APR.* 1984	MAR. 1984	APR. 1983	APR.* 1984	MAR. 1984	APR. 1983	APR.* 1984	MAR. 1984	APR. 1983
FOR THE STATE OF ARIZONA*									
Manufacturing	374.74	369.65	351.16	41.0	40.8	39.5	9.14	9.06	8.89
Aircraft & Missiles	490.68	480.53	470.38	42.3	42.3	42.3	11.60	11.36	11.12
Food & Kindred Products	316.30	316.30	325.05	38.2	38.2	39.4	8.28	8.28	8.25
Primary Metals	473.37	458.81	460.48	37.9	37.7	37.9	12.49	12.17	12.15
Machinery	341.07	339.84	318.55	40.7	40.7	38.8	8.38	8.35	8.21
Copper Mining	512.86	519.39	523.38	39.3	39.8	39.5	13.05	13.05	13.25
Construction	426.51	421.36	456.96	36.8	36.8	38.4	11.59	11.45	11.90
Utilities	529.27	529.27	488.32	43.1	43.1	43.1	12.28	12.28	11.33
Retail Trade**	238.14	238.14	207.13	33.4	33.4	33.3	7.13	7.13	6.22
Wholesale Trade	346.66	346.66	344.56	39.8	39.8	40.3	8.71	8.71	8.55

* Preliminary

** Excludes eating and drinking places.

NOTE--These estimates are based on a sample of full and part-time production and related employees whose payroll and hours are reported for the pay period which includes the 12th of the month. All data have been adjusted to the 1972 Standard Industrial Classifications (SIC).

--Prepared by Labor Market Information, Research and Analysis (1972 SIC, 1/84)

THE ARIZONA LABOR FORCE IN APRIL 1984

Arizona's economy continued to show strength in April as the unemployment rate dipped to its lowest level since October 1979. Once again, the state's urban counties led the way. The unemployment rates in Maricopa and Pima Counties are among the lowest of the nation's metropolitan areas. While the rate of growth in employment has slowed somewhat, new jobs were still being created at a rapid clip in construction, services and retail trade. Wage and salary employment rose by over 700 in the state's nonmetropolitan counties, but this was mostly due to the return to work of 700 striking coal miners in northern Arizona.

An analysis of recent economic performance in Arizona reveals some impressive facts. Unemployment within the state has fallen rapidly at a time when the nation's unemployment rate has remained steady for three consecutive months. The economic recovery which began early in 1983 has continued smoothly for fourteen months. About 100,000 jobs have been created in Arizona during a period when employment in copper mining actually declined. The increased diversity of the state's economy will help to promote stability in the future.

At 4.6 percent, Pima County's unemployment rate is also at its lowest level in over four years. Trade activity in the Tucson area seems especially strong. Although the winter tourism season is over, most of the gains in employment made during the winter in Pima County have been retained. Employment in Pima County has grown more slowly than in Maricopa County because the Phoenix area has not depended on mining and trade with Mexico to the same degree that southern Arizona has. However, the rapid growth of manufacturing activity in recent years has been contributing to the resilience and complexity of the Pima County economy.

Unfortunately, much of Arizona is not shareing in the prosperity. There are still over 70,000 unemployed workers in Arizona. Many communities in southern Arizona continue to suffer from the impact of economic distress in Mexico and its effects on trade in the border counties. There are towns around the state that have depended on the copper mines for jobs for many years. As long as the copper industry remains depressed, these communities will continue to face severe hardship and very few jobs will be created. Consider the contrasting conditions in Coconino County, a growing area with an unemployment rate of 6.6 percent, and Santa Cruz and Gila Counties, both with unemployment rates over 13 percent. It is clear that economic opportunities are unevenly distributed in Arizona, and the statewide statistics do not reveal this disparity.

The short-term outlook for the state is mixed. The economy is expected to keep growing, but rising interest rates may cause the pace of construction activity to slow down. Some upward pressure on the unemployment rate may be seen as people, attracted by the recent growth of job opportunities in the metropolitan areas, enter the labor force. Overall, we expect Arizona to continue to perform significantly better than the national average.

EDUCATIONAL LEVEL OF ARIZONANS 25 YEARS AND OVER
(1980 Census)

COUNTY	LESS THAN 5 YEARS ELEMENTARY SCHOOL	HIGH SCHOOL GRADUATES	4 OR MORE YEARS OF COLLEGE	MEDIAN YEARS OF SCHOOL COMPLETED
Apache	26.2%	49.3%	10.4%	11.8
Cochise	4.7	68.8	13.8	12.5
Coconino	8.6	74.4	23.2	12.8
Gila	3.6	61.7	7.8	12.3
Graham	5.4	60.5	10.0	12.3
Greenlee	3.2	68.3	9.9	12.4
Maricopa	2.7	75.0	18.3	12.7
Mohave	1.0	69.1	8.8	12.5
Navajo	12.6	59.7	11.2	12.3
Pima	2.9	74.6	20.7	12.7
Pinal	7.0	55.0	9.3	12.2
Santa Cruz	9.3	54.0	13.2	12.2
Yavapai	1.1	73.9	16.2	12.6
Yuma	7.5	61.6	10.9	12.3
ARIZONA	3.8	72.4	17.4	12.7
U. S.	3.4	68.7	17.0	12.5

NOTE: Data are estimates based on a sample.

SCHOOL STATUS OF ARIZONANS 16-19 YEARS OLD
(1980 Census)

COUNTY	ENROLLED IN SCHOOL	HIGH SCHOOL GRADUATE	NOT ENROLLED, NOT HIGH SCHOOL GRADUATE	ARMED FORCES
Apache	61.1%	12.4%	26.5%	--
Cochise	69.3	12.3	13.7	4.7%
Coconino	74.1	13.4	12.5	--
Gila	62.8	13.5	23.8	--
Graham	73.2	14.8	11.9	--
Greenlee	65.3	21.7	13.0	--
Maricopa	64.0	16.8	18.4	0.8
Mohave	52.9	25.8	21.3	--
Navajo	59.4	14.0	26.0	0.6
Pima	69.5	15.2	14.1	1.3
Pinal	59.6	13.5	26.9	--
Santa Cruz	73.7	10.4	15.8	--
Yavapai	72.8	15.3	11.6	0.3
Yuma	53.5	13.9	26.0	6.5
ARIZONA	65.1	15.8	18.0	1.1
U. S.	70.1	15.3	13.2	1.5

NOTE: Data are estimates based on a sample. Figures may not total to 100.0 due to rounding error.

STATE APROPRIATIONS FOR HIGHER EDUCATION
1983-84*
(in thousands)

	APPROPRIATIONS 1983-84	2-YEAR CHANGE
University of Arizona	$147,249	+ 4%
Arizona State University	$102,551	+ 6%
Northern Arizona University	$ 37,906	+ 9%
Community Colleges	$ 44,618	+47%
Other Appropriations	$ 3,756	+ 2%
TOTAL	$336,080	+10%

HOW ARIZONA RANKS AMONG THE 50 STATES ON 5 SCALES*

1983-84 APPROPRIATIONS		APPROPRIATIONS PER CAPITA		APPROPRIATIONS PER $1000 OF PERSONAL INCOME		2-YEAR CHANGE LESS INFLATION		10-YEAR CHANGE LESS INFLATION	
AMOUNT	RANK	AMOUNT	RANK	AMOUNT	RANK	PERCENT	RANK	PERCENT	RANK
$336,080,000	29	$116.25	23	$11.09	20	0%	33	+10%	31

*SOURCE: The Chronicle of Higher Education, October 26, 1983.

GENERAL FUND APPROPRIATIONS FOR ARIZONA PUBLIC UNIVERSITY SYSTEM
1982-83 (revised)

	ARIZONA STATE UNIVERSITY	NORTHERN ARIZONA UNIVERSITY	UNIVERSITY OF ARIZONA				BOARD OF REGENTS
			TOTAL	MAIN CAMPUS	COLLEGE OF MEDICINE	UNIVERSITY HOSPITAL	
Operating Budgets, General Fund Appropriations (in millions)	$89.2	$33.5	$126.0	$103.9	$18.3	$3.8	$3.1
Percent of Total General Fund Appropriation	35.4%	13.3%	50.0%	41.2%	7.3%	1.5%	1.2%

NOTE: Percentage do not total 100.0 due to rounding error.
SOURCE: Arizona Board of Regents.

FUNDS RECEIVED BY SCHOOLS FROM ARIZONA STATE TRUST LANDS
YEAR ENDING JUNE 30, 1983

	EARNINGS FROM TRUST LAND PERPETUAL FUNDS	RECEIPT DISTRIBUTION			TOTAL FUNDS RECEIVED
		SALES INTEREST	LEASE RENTAL	PENALTY & INTEREST	
Normal Schools-					
Half to Arizona State University	$ 21,784	$ 7,380	$ 77,005	$ 223	$ 106,392
Half to Northern Arizona University	21,784	7,380	77,005	223	106,392
University of Arizona-					
Agricultural & Mechanical Colleges	66,417	30,024	100,681	354	197,476
Military Institutes	30,323	1,993	74,611	282	107,209
School of Mines	73,848	23,825	119,896	732	218,301
University Land Code	297,235	9,464	192,967	2,271	501,937
University of Arizona, Act of 2-18-1881	223,402	23,341	143,985	881	391,609
Total, University of Arizona					1,416,532
Permanent Common Schools	12,696,233	1,173,623	7,210,965	75,514	21,156,335

SOURCE: Arizona State Land Department.

STATISTICS IN EDUCATION
(GRADES K-12)
1982-83

Number of Pupils Enrolled in Public Schools	552,395
Number of Pupils Enrolled in Private Schools	45,142
Total State Enrollment	597,537
Number of Public Schools	879
Number of Private Schools	354
Number of Public School Classroom Teachers Female= 66.2% Male= 33.8%	26,194
Total Expenditures	$ 1.3 Billion
Cost per Pupil (Regular Education Program)	$ 1,788
Average Salary per Teacher	$21,119

Revenues:	
State Aid	51.0%
Local Support	36.8
Federal Aid	8.5
County Aid	3.7

SOURCE: Arizona Department of Education, Annual Report of the Superintendent of Public Instruction, FY 1982-83.

ENROLLMENT AT ARIZONA PUBLIC UNIVERSITIES AND COMMUNITY COLLEGES
FALL 1983

	TOTAL STUDENTS (HEADCOUNT)	TOTAL STUDENTS (FTE*)
PUBLIC UNIVERSITIES		
Arizona State University	40,239	31,198
Northern Arizona University	11,501	10,140
University of Arizona	29,986	25,208
SUB-TOTAL	81,726	66,546
PUBLIC COMMUNITY COLLEGES		
Arizona Western College	4,090	1,925
Central Arizona College	4,906	2,016
Cochise College	4,103	2,416
Eastern Arizona College	3,370	1,692
Glendale Community College	13,689	7,185
Maricopa Technical Community College	3,407	1,844
Mesa Community College	15,175	8,101
Mohave Community College	3,066	1,040
Northland Pioneer College	5,274	1,565
Phoenix College	13,137	6,601
Pima Community College	20,902	10,661
Rio Salado Community College	10,858	2,837
Scottsdale Community College	7,504	3,506
South Mountain Community College	1,667	1,082
Yavapai Community College	5,343	1,844
SUB-TOTAL	116,491	54,315
GRAND TOTAL	198,217	120,861

* Full-time equivalent.

SOURCES: Arizona Board of Regents and Arizona Commission for Postsecondary Education, Higher Education General Information Survey (HEGIS).

FACULTY AT ARIZONA PUBLIC COMMUNITY COLLEGES
BY SEX AND RANK, 1983-84

	MALE	FEMALE	PERCENT FEMALE
Arizona Western College	45	23	33.8%
Central Arizona College	INA	INA	--
Cochise College	65	25	27.8
Eastern Arizona College	39	13	25.0
Glendale Community College	107	60	35.9
Maricopa Technical Community College	32	23	41.8
Mesa Community College	120	60	33.3
Mohave Community College	INA	INA	--
Northland Pioneer College	INA	INA	--
Phoenix College	94	71	43.0
Pima Community College	145	93	39.1
Rio Salado Community College	3	2	40.0
Scottsdale Community College	57	43	43.0
South Mountain Community College	4	12	75.0
Yavapai Community College	40	20	33.3

INA = Information not available.
NOTE: Data are for full-time instructional staff.
SOURCE: Arizona Commission for Postsecondary Education, Higher Education General Information Survey (HEGIS).

AVERAGE FACULTY SALARIES FOR ARIZONA PUBLIC COMMUNITY COLLEGES
1983-84
(in thousands)

	MALE	FEMALE	RATIO*
Arizona Western College	$ 24.4	$ 22.0	90%
Central Arizona College	INA	INA	--
Cochise College	23.2	20.7	89%
Eastern Arizona College	26.5	22.3	84%
Glendale Community College	35.1	32.9	94%
Maricopa Technical Community College	33.8	30.2	89%
Mesa Community College	35.1	31.4	89%
Mohave Community College	INA	INA	--
Northland Pioneer College	INA	INA	--
Phoenix College	35.6	32.9	92%
Pima Community College	25.5	23.8	93%
Rio Salado Community College	28.4	37.6	132%
Scottsdale Community College	32.5	34.6	106%
South Mountain Community College	30.4	25.2	83%
Yavapai Community College	28.0	24.0	86%

* Female salary as a percentage of male salary.
INA= Information not available.
NOTE: Data are for full-time instructional staff on 9-month salary contracts. Data to control for factors such as length of service were not available.
SOURCE: Arizona Commission for Postsecondary Education, Higher Education General Information Survey (HEGIS).

FACULTY AT ARIZONA PUBLIC UNIVERSITIES BY SEX AND RANK
1983-84

	PROFESSOR			ASSOCIATE PROFESSOR			ASSISTANT PROFESSOR			INSTRUCTOR		
	MALE	FEMALE	PERCENT FEMALE	MALE	FEMALE	PERCENT FEMALE	MALE	FEMALE	PERCENT FEMALE	MALE	FEMALE	PERCENT FEMALE
Arizona State University	439	43	8.9%	344	63	15.5%	196	100	33.8%	4	25	86.2%
Northern Arizona University	108	3	2.7	166	18	9.8	89	37	29.4	27	23	46.0
University of Arizona	644	29	4.3	300	59	16.4	141	72	33.8	11	12	52.2

NOTE: Data are for full-time instructional staff.
SOURCE: Arizona Commission for Postsecondary Education, Higher Education General Information Survey (HEGIS).

AVERAGE FACULTY SALARIES FOR ARIZONA PUBLIC UNIVERSITIES
1983-84
(in thousands)

	PROFESSOR			ASSOCIATE PROFESSOR			ASSISTANT PROFESSOR			INSTRUCTOR		
	MALE	FEMALE	RATIO*	MALE	FEMALE	RATIO*	MALE	FEMALE	RATIO*	MALE	FEMALE	RATIO*
Arizona State University	$40.8	$37.2	91%	$31.2	$29.8	95%	$25.6	$23.8	93%	$19.2	$19.6	102%
Northern Arizona University	36.2	35.5	98%	29.4	28.9	98%	24.3	23.5	97%	20.0	19.3	96%
University of Arizona	41.8	38.2	91%	31.2	29.2	94%	25.8	23.9	93%	25.7	20.7	80%

* Female salary as a percentage of male salary.
NOTE: Data are for full-time instructional staff. A standard conversion factor of .818 was applied to 12-month salaries. Data to control for time-in-rank, productivity and market factors were not available.
SOURCE: Arizona Commission for Postsecondary Education, Higher Education General Information Survey (HEGIS).

TUITION & REQUIRED FEES [illegible] ARIZONA'S PUBLIC UNIVERSITIES
983-84

Resident Fees	$ 850
Average Resident Fees in 13 Western States (WICHE region)	$ 991
Average Resident Fees at 50 Major State Universities	$1,243
Non-Resident Tuition	$3,515
Average Non-Residential Tuition in 13 Western States (WICHE region)	$3,094
Average Non-Resident Tuition at 50 Major State Universities	$3,289

SOURCE: Arizona Board of Regents.

"DIPLOMA MILLS"-- A THING OF THE PAST IN ARIZONA

There are many today who believe that alternative education and the non-traditional degree will be the wave of the educational future. People are earning college degrees on the basis of correspondence study, credits for life or work experience, intensive study and equivalency examinations. This is a valid alternative to classroom study for people who cannot leave full-time employment to attend a traditional college.

However, abuses of such non-traditional approaches to education sometimes occur. Arizona has been a prime target for such abuses because, until recently, it has been one of three states that lack the power to properly regulate "diploma mills"-- unscrupulous businesses that provide bachelor, master and doctoral degrees for a price and little else. Many diploma mills are operated by individuals who live out of state and the "campuses" are nothing more than mail drops or telephone answering services. Accreditation -- a method developed by private educational associations to insure minimum standards of quality for both public and private institutions -- is "granted" to diploma mills by phony accrediting agencies set up by the diploma mills themselves to give an illusion of credibility.

A recent FBI investigation of one Arizona diploma mill illustrates this pattern. The investigating agent obtained a master's degree in business administration after paying the school $1,595. He purchased a "class ring" after sending the school's "jewelry department" a check for $149. To "earn" his degree, the agent did no research and wrote no thesis. In fact, in a letter to the school he wrote that he did not have time to do research because he was "backlogged" as a result of a vacation to the World's Fair. School officials agreed to accept only his resume and awarded him a master's degree several months later.

Arizona's consumer-fraud laws have been ineffective in dealing with diploma mills because they were designed to protect consumers. In diploma-mill cases, the consumers are not victims but the willing participants in the scheme. The victims are employers who hire or promote workers on the basis of this bogus education.

Regulation of diploma mills in Arizona will now be possible with the recent passage of HB-2423. Private degree-granting institutions which meet the minimum criteria as defined by the legislature will be required to apply for and become licensed in order to grant degrees in Arizona. Businesses which cannot meet the minimum standards will be required to cease operation in Arizona.

The primary licensing standard required of institutions which grant degrees will be that each degree program offered is accredited or the institution is accredited by an accrediting agency recognized by the United States Department of Education or the Council on Postsecondary Education.

Because the process of accreditation may take several years, there are provisions for unaccredited degree-granting institutions to demonstrate that application for accreditation has been made through an appropriate agency or the institution must show a commitment to apply for accreditation. During the period of accreditation candidacy, the institution will be monitored to ensure that standards compatible with accreditation acceptance are maintained.

The legislation does not apply to public community colleges, public universities, or to institutions which offer religious degrees that are used solely for religious purposes within a religious organization which has tax exempt status from the Internal Revenue Service.

An existing agency, the State Board of Private Technical and Business Schools, will soon have its name changed to the State Board for Private Postsecondary Education. Presently, the Board licenses approximately 200 schools and seminars which offer courses designed to prepare students for specific jobs. These schools offer a broad range of courses in such diverse areas as business, technical, allied health and real estate. Many of the licensed schools are accredited by nationally-recognized accrediting agencies.

Effective January 1, 1985, in addition to the presently licensed schools, the Board will assume responsibility for the licensing of private degree-granting institutions. State licensing will strengthen the professional image of legitimate degree-granting institutions and better serve the general public.

Patricia Plack
Arizona State Board
of Private Technical
and Business Schools

PHOENIX URBAN LEAGUE AND IBM TEAM UP TO TRAIN JOBLESS IN COMPUTER SKILLS

The Phoenix Urban League Training Center opened its doors in October 1982 to unemployed Arizonans interested in preparing for a job. Since that time, 90 students have graduated in one of four areas--computer programming, computer operations, word processing or clerical--and the overall placement rate is an impressive 96 percent. This rate is consistent with the program's goal which is placement, not simply training, of the participants.

IBM has furnished the state-of-the-art equipment used at the training center. In addition, the program instructors and the training center manager are paid employees of IBM available to the training center for a total of three years. The equipment, which includes 18 terminals, is also on loan for three years but will be renegotiated for continued loan at the end of that period.

Prospective students must pass a rigorous screening process that includes an application, an aptitude test and an in-depth interview. Once admitted, the standards continue to be high. The computer programming and computer operations students must maintain a 75 percent grade point average on all tests and assignments. The word processing and clerical students must also meet typing speeds. All of the participants must be highly motivated because they receive no stipends (despite being unemployed), and they must conduct themselves as if on a job during the five-days-a-week, 9:00 to 4:00 class sessions. The training lasts ten weeks (13 for computer programming).

The Phoenix Urban League is responsible for administering the program, furnishing the facilities and developing the job-specific skills, related basic skills and responsibility skills necessary if the students are to succeed on the job (a course the Phoenix Urban League calls "Jobology"). The League also assists the students in job placement although, ultimately, finding a job is considered a student responsibility.

The training center provides a properly organized and well-planned approach to the job market. Although the students do not pay a fee, the training center does expect something in return -- hard work, cooperation and adherence to the policies governing the center. The 96 percent placement rate testifies to how well the center -- and the students -- are doing their job.

Lee Marshall
Phoenix Urban League

INDUSTRY TRAINING SERVICES--CORPORATE SECURITY TRAINING PROGRAM

Security service is an occupation common to all Arizona industries. It is also one of the fastest-growing occupations in our state, with an anticipated growth rate of nearly 40 percent in the next five years.*

While present employment is somewhat limited, the nearly 7,000 persons currently employed have a major impact upon the operations of business and industry in Arizona. In nearly all industries, visitors must be cleared to venture beyond the front lobby and personnel are checked as they enter and exit work sites. Where hazardous materials are involved, or in the case of our high-technology industries, security services have become vital to a company's survival.

The security service occupation is changing rapidly. As life-threatening situations become more commonplace, security service people need the skills of yesterday's guard as well as knowledge of the the criminal justice system, constitutional law, self defense, narcotics and life-saving techniques. Given these increased requirements, there is a lack of adequately trained security staff.

A cooperative program of security training funded through Industry Training Services and the Department of Economic Security, JTPA Dislocated Workers, has been designed to alleviate the shortage of trained security personnel. The training goes beyond a very limited state licensing requirement, providing trainees with 80 hours of intensive instruction in the following areas: the criminal justice system, law enforcement courts and correction, constitutional law, laws of arrest and civil liability, criminal law, first aid, self-defense methods and tactics, riot control, cardiopulmonary resuscitation, fire prevention and and safety, firearm legal and moral use, and qualification.

Completion of this training will allow the California Plant Protection Agency, the employing company, to provide skilled employees for such companies as Salt River Project, Arizona Public Service Company, Palo Verde Nuclear Generating Station and many of the electronic manufacturing industries which require a highly trained security staff.

Working through worker assistance centers, persons are referred to training who are identified as dislocated workers and who:

1. Have been terminated or laid off or who have received a notice of termination or layoff from employment, are eligible for or have exhausted their entitlement to unemployment compensation, and are unlikely to return to their previous industry or occupation;
2. Have been terminated, or who have received a notice of termination of employment as a result of any permanent closure of a plant or facility; or
3. Are long-term unemployed and have limited opportunities for employment or reemployment in the same or a similar occupation in the area in which they reside, including any older individuals who may have substantial barriers to employment by reason of age.

Referrals will be based upon a person's interest and ability to become state certified upon program completion. Persons interested in security service but who do not qualify for the dislocated worker project may apply directly to the California Plant Protection Agency for entry into the program.

Persons selected for the training may, after meeting state requirements, be licensed and placed in on-the-job training positions for a period not to exceed six weeks. Employers are reimbursed for about half of the wages for extraordinary training costs and employees enjoy financial assistance and an opportunity to apply the skills learned in the classroom. Length of on-the-job training will vary and is negotiated through each contract.

All persons who complete the training are automatically employed by the California Plant Protection Agency at a rate from $4.53 to $7.50 per hour, contingent upon the nature and location of work. Job placement may be in any of the contracts serviced by California Plant Protection; however, every effort will be taken to ensure that financial hardships are not created through work assignments.

This example of cooperation between business/industry, state services and service-providing agencies provides the best possible utilization of our available resources and a quality work force to meet employment demands. Only through such continued efforts can we maximize utilization of existing facilities and equipment, thus providing a very cost-conscious public relief from new and often duplicative training services.

Industry Training Services is ready to assist business and industry in creating a productive and skilled work force. As a state funded and administered project by the Arizona Department of Education, Division of Vocational Education, in cooperation with the Arizona Department of Economic Security, it is dedicated to the following purposes:

- To encourage new industries to locate in Arizona and to encourage existing industries to expand their Arizona operations.
- To offer to the people of Arizona the specific training needed to qualify for and perform in the new jobs created by new or expanding industries.
- To help new or expanding industry create a productive work force as expeditiously and efficiently as possible.

Don Parsons
Coconino County Educational Services

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*Labor Market Information, Occupational Employment Statistics (OES) Unit.

NEW LMI PUBLICATIONS

Updates of the Maricopa and Pima County Small Employer Wage Surveys are now available. These publications contain information on wages paid by private businesses with fewer than 100 workers in Maricopa and Pima Counties. The survey month was August, 1983. Data were collected by mail from randomly selected and undisclosed employers. Wage structures are reported for over 120 occupations in Pima County and for 135 occupations in Maricopa County.

Single copies of these publications may be obtained by writing: Labor Market Information Publications - 733A, P. O. Box 6123, Phoenix, Arizona 85005. Multiple copies may be purchased for the cost of the printing.

ARIZONA UNEMPLOYMENT INSURANCE ACTIVITIES - MARCH 1984

	March 1984	February 1984	March 1983	From One Year Ago
Arizona Claimants Served**	30,282	31,302	67,452	-55.1%
Arizona Average Weeks Unemployed***	9.3	9.0	10.7	-13.1%
Arizona Benefits Paid**	$ 10,855,611	$9,890,768	$23,761,819	-54.3%
Arizona Trust Fund Balance	$160,999,182	$168,594,587	$175,046,144	- 8.0%

*Estimated **All Programs ***UI Only

NEW DEVELOPMENTS

Construction - Construction will begin this month on the first phase of a $17 million office complex at Cabot, Cabot & Forbes' Civic Center Business Park, between Seventh and 11th Streets from Jefferson to Jackson Streets in Phoenix. The complex will consist of 148,000 square feet of leasable space.

Griffiths Construction, Inc., a Casa Grande contracting firm formed last year, has established a Phoenix headquarters. A staff of 13 will work at the new office.

Construction began last month on the $30 million second phase of the Scottsdale Financial Center office complex. The 151,000 square-foot structure will be completed in June 1985. The project will emphasize financial institutions, stock and bond brokers and other financially oriented tenants.

Manufacturing - Environmental Air Products Inc. may increase its 1,000-member payroll in Tucson by about 200 after completion of a major expansion project scheduled to begin this fall. Environmental Air is a producer of commercial air systems. The $5 million project the company is planning is expected to be financed by $3 million from bond sales, $1.2 million from a city-approved Urban Development Action Grant, and $800,000 from a 1982 bond sale.

A New York-based electronics firm has announced plans to move a portion of its manufacturing facilities to Chandler, creating up to 100 new jobs. The company hopes to be operating by August and will initially employ about 25 workers. The firm, Haraeus Volkert Corp., produces metal lead frames, the small piece of metal to which computer chips are attached. The company plans to be a supplier to Intel Corp. and Motorola, both of which plan major expansions in the Chandler area.

Sundt Products Inc., a subsidiary of the Sundt Corp., is adding 55 workers -- more than doubling its Tucson work force -- to handle a contract to build 36 fiberglass pollution-control mechanisms for Dresser Industries' Fluid-Ionic Systems, in Phoenix. Most of the hirings have and will come from Sundt workers who had been laid off.

American Converters Division of American Hospital Supply Inc. is moving some of its manufacturing from Palm Springs, California to Tucson. A few managers may transfer and the 50 employees are being given a chance to relocate. An unspecified number of workers will be hired by the company, based in Evanston, Illinois, to make entrance mats and hospital clothing.

ITT Corp. has formed a new division headquartered in Tempe that will manufacture and market the company's new Xtra personal computer. Manufacturing, product planning, research and development and software development for the division will be located in San Jose, California. Sales organizations for the division, as well as its headquarters, are in Tempe.

Atlantic Richfield plans to build a Tucson manufacturing operation late this year that is to employ about 20 employees with chemical or engineering degrees. The plant would be the only manufacturing facility in the country to produce super-pure aluminas for application in the high-technology and electronic markets. Aluminas production is currently dominated by the foreign market, particularly by France and Japan. ARCO is anticipating a rapid penetration of 25 to 30 percent of that market, which is estimated at $10 million.

Banking - The Chase Manhattan Corp. in New York has filed applications with the U. S. comptroller of the currency to place banks in eight states, including one in Phoenix and one in Tucson. The expansion is made possible by recent interpretations of federal banking laws by regulatory agencies.

Mellon Bank of Pittsburgh has also announced that it has asked the federal government for permission to open consumer banks in several cities, including Phoenix.

Mining - Pinto Valley Copper Corp. has resumed operations at its open-pit copper mine in Miami, putting about 375 workers back to work. Although copper prices have remained at depressed levels, the company said an agreement with its unions to cut hourly wages by $2 for six months will allow it to restart. The mine had been closed since July 1982, when about 450 people were laid off. The only portions of the operation that have remained in use are two leaching units.

Automobiles - Chrysler Corp. has announced plans to build and operate an auto proving ground in Wittmann, 35 miles northwest of Phoenix. The 3,812-acre, $12 million test site is scheduled for completion in three years and will be available for initial testing within 18 months. The site will be used to test the effects of heat, high altitudes and desert conditions. Employment is projected at 100 by the fall of 1985.

The test site will be the third proving ground operated by a major automaker in Arizona. Ford performs tests near Kingman, and General Motors has a test area south of Mesa.

Gasoline - Mobil Oil Corp. is planning to expand its holdings in Phoenix. The company has agreed to purchase 21 Valley self-service stations from the Pasco Petroleum Co. within the next few months. In December, Texaco Inc. purchased six self-service stations from the Phoenix-based Giant Industries, Inc. The Texaco and Mobil transactions are considered by some industry officials to be the latest moves in a continuing trend toward the domination of the Phoenix-area gas market by major oil companies.

Hotels - The city of Tucson has received a $425,000 Urban Development Action Grant toward the renovation of the Geronimo Hotel. The $2.5 million project to renovate the 53-year-old hotel just west of the University of Arizona is expected to produce about 145 jobs.

Hotel Properties, developer of a nationwide hotel chain, has recently opened Continental Inns in Flagstaff and Tucson.

Restaurants - Phoenix-based MacDonald Mortgage Corp. has obtained the rights to franchise, build and operate as many as 61 Po Folks Family Restaurants, including 11 in Arizona. Po Folks is based in Nashville, Tennessee and currently has 104 restaurants, mainly in the South. Nine restaurants will be built in Maricopa County, one in Flagstaff and one in Yuma.

Layoffs - Cyprus Metallurgical Processes Corp. has laid off 18 employees, nearly half of its 41-member work force. The operation 21 miles from Tucson employed 123 persons before earlier cutbacks. The layoffs affected machine operators, mechanics and administrative personnel.

Three Phoenix-area school districts have announced plans to lay off staff. The Scottsdale School Board has decided not to renew the contracts of 58 teachers, although the district hopes to find jobs for the displaced teachers by the beginning of the 1984-85 school year by filling positions vacated by teachers who retire or resign. In the Deer Valley Unified School District, 39 instructors, mostly elementary school teachers, have received reduction-in-force notices. It is anticipated that some of these teachers will be hired back for the 1984-85 school year. In the Phoenix Elementary School District, 71 teachers and other employees were left without jobs at the end of the recently-completed school year. An administrative reorganization and a reduced district budget capacity caused by state spending limits are forcing the layoffs of 35 teachers, two administrators, 28 classified employees and six people in professional non-teaching positions.

Arizona Supreme Court Ruling - Promises made in employee handbooks can become part of an employment contract and can limit an employer's ability to fire its workers according to a recent Arizona Supreme Court ruling. However, Vice Chief Justice Frank X. Gordon Jr. wrote in the 13-page opinion that, "We do not mean to imply that all personnel manuals will become part of employment contracts." He said employers are free not to issue manuals or to warn employees that a manual is not part of their contract and that they may be fired with or without reason.

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Arizona Department of Economic Security

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Gaming in Arizona?

A controversial issue of debate in recent months has been the prospect of legalized casino gambling in Arizona. Those in favor of the idea talk of economic gains, such as increased tax revenues and additional jobs. Those opposed talk of increased crime rates and depressed social conditions. Still others argue that little change would occur if gaming activities were limited to non-metropolitan areas of the state, such as Lake Havasu City or Bullhead City. This article will briefly examine some of the social and economic issues that surround the gaming industry and propose conditions that might arise within small towns, such as Lake Havasu City, if casino gambling were to be legalized.

At the present time, some forms of gaming are legal in Arizona (e.g., state lottery, horse and dog track parimutuel betting). These activities have generated millions of dollars in tax revenues and have helped increase tourism. However, their effect on Arizona's economy has been miniscule compared to the effect of gaming on Nevada's economy.

Gaming in Nevada

Gambling was legalized in Nevada in 1931. Growth in the gaming industry was slow at first; however, tremendous growth occurred during the 1940s. This growth was accompanied by a corresponding increase in tourism, especially in the population centers of Las Vegas and Reno.

Unemployment Rate

Seasonally Adjusted
May*

ARIZONA	5.3%
Maricopa Co.	4.0%
Pima Co.	4.5%
UNITED STATES	7.5%

Consumer Price Index

National-April
1967 - Base Year

Wage Earner/Clerical Worker -	304.1
% Chg. Yr. Ago	3.1
All Urban -	308.8
% Chg. Yr. Ago	4.5

Phoenix-1st Qtr.
1977 - Base Year

All Urban -	177.4
% Chg. Yr. Ago	5.8

Producer Price Index

National-May*
1967 - Base Year

All Commodities-	311.7
% Chg. Yr. Ago	3.4
Finished Goods -	291.5
% Chg. Yr. Ago	2.6

* Preliminary

Population growth also increased as the gaming industry developed. The state's most marked population growth occurred during the 1950s with an annual rate of six percent. During the 1960s and 1970s, population growth averaged five percent annually. In fact, most of the state's population growth has been related to the development and expansion of the gaming industry.

Today, a number of multi-million dollar hotel/casinos exist throughout Nevada, although most are located in the Las Vegas area (Clark County). In 1982, approximately 60 percent of the employment in the gaming industry was located in Las Vegas. However, in recent years several communities other than Las Vegas have experienced unprecedented growth. For example, in Elko County, Wendover and Jackpot have recently undergone a significant gaming expansion. The Laughlin area has experienced a similar trend.

The hotel/gaming/recreation industry is heavily dependent upon tourism. During the early 1980s, tourism trade in Nevada exceeded 25 million visitors annually, with gaming accounting for over $1.2 billion in annual taxable revenues. According to the Nevada Gaming Control Board, during the first quarter of 1983 gaming revenues reached $460 million in Las Vegas and $120 million in Reno.

The majority of gaming revenues are, undoubtedly, generated in the population centers of Las Vegas and Reno. However, hotel/casino development has flourished in the smaller counties of Nevada in recent years through the development of recreational vehicle parks. The attempt in the lesser developed areas has been to integrate gaming with various forms of family entertainment (e.g., outdoor leisure activities).

Industrial Employment

Wage and salary employment has increased substantially in Nevada since the onset of legalized gambling. From 1960 to 1970, total wage and salary employment increased by more than 260,000 jobs. During this period, wage and salary employment had a growth rate of less than six percent while employment in the hotel/gaming/recreation sector of the service industry averaged nearly eight percent per year.

The service industry is, unquestionably, the dominant factor in Nevada's economy. Nearly one-half of all jobs are found in this industry. (By contrast, the service industry employs 22.6 percent of nonagricultural workers in Arizona.) Nevada's total wage and salary employment is illustrated in Table 1. During 1982, the hotel/gaming/recreation sector of the service industry accounted for almost 30 percent of total wage and salary employment. This sector also generated expansion in employment for the retail trade industry through increased tourism.

Average annual job openings within Nevada are presented in Table 2. As shown in the table, projected employment opportunities within the service industry are greater than for any other industry. The greatest demand within the hotel and gaming sector will be for occupational classifications such as dealer, change person, keno runner, busperson, waiter/waitress and kitchen helper.

Occupational Trends

Employment opportunities within the hotel/gaming/recreation sector of the service industry vary by geographical location and size of firm. Occupational demand within this sector for 1984 is provided in Table 3. Obviously, the greatest number of employment opportunities exist within the population centers; however, gaming expansion has increased opportunities in the nonmetropolitan areas.

Nearly 60 percent of all jobs in this industry are found within establishments with payrolls of 1,000 or more. The greatest demand has been for candidates interested in lower-paying, entry-level positions such as change person, bartender and dealer. Supervisory positions are generally filled by experienced applicants already in the gaming industry. These trends are expected to continue.

A hotel/gaming establishment is an around-the-clock operation. Shift work is involved in practically all occupations. The normal work week is 40 hours, although part-time work is common within the industry. Weekend and holiday work is required of most workers.

Most entry-level positions in the hotel/gaming industry do not require special training. However, the vast majority of dealer positions are open only to those applicants who have completed course work in gaming. Applicants must complete at least one dealing course to be considered; this entails approximately 60 to 300 hours of training, depending upon the game. Training classes are offered at numerous private and some public vocational education schools throughout the state.

Wages

Wages, gratuities and fringe benefits differ significantly from job to job. They are influenced, primarily, by geographic location, size of firm and union affiliation. In areas where there are strong unions (e.g., Las Vegas culinary union with 25,000 to 30,000 members), a high percentage of gaming jobs can be obtained only through union hiring halls. Nevertheless, even in establishments where a union contract is in force, many jobs are nonunion.

Table 4 reveals average wage ranges for selected occupations within the hotel/gaming/recreation sector of the service industry. When considering wages alone, this sector of employment had the lowest average wage of all industries in the state (see Table 1) during 1979; however, for a large number of workers, gratuities (tips) amount to a considerable portion of total earnings. In fact, some workers collect a higher percentage of total earnings from gratuities than from salaries. The larger firms may also offer fringe benefits, such as group medical insurance, vacation leave, paid holidays and pension plans.

Lake Havasu City

Lake Havasu City is located along the Colorado River in Mohave County, Arizona, on the California border. Most of the county's residents live in small communities located along the river or in Kingman, and most of the job opportunities are in these areas. The county's economic base consists primarily of tourism and manufacturing activities. Like much of Northern Arizona, Mohave County depends heavily on tourism for employment opportunities.

In 1958, Robert McCulloch purchased 3,530 acres around Havasu for use as a testing site for his outboard motors. In 1963, he purchased the entire 26-square-mile area which later became Lake Havasu City. McCulloch dreamed of a totally planned industrial resort community, free from the disadvantages of urban living. Since the opening of the London Bridge in Havasu, the city has drawn in excess of one million visitors annually, and may soon become the largest city in Mohave County.

Integrating Casinos

If casino gambling were to be legalized in Lake Havasu City, the social and economic conditions that currently prevail would undoubtedly change. Because the gaming industry is an around-the-clock operation, the nature of employment opportunities and social activities would be drastically altered. The degree of change would depend largely upon the types and amount of development that would occur and the demand for gaming. Without restrictions, this cyclical process could result in rapid surges of population growth.

Legalized casino gambling would generate millions of dollars in tourism revenues. Because of the hot, dry climate of the area, tourism would be closely linked to water-based recreation, much as it is today. Building patterns would probably follow the trends of rural gaming areas in Nevada -- small- and medium-sized establishments along the waterfronts. The demand for recreational services and facilities would increase and resources would be made available. Tax revenues would increase substantially.

Employment opportunities would also be expanded. A number of both full- and part-time, lower-paying, entry-level service jobs would become available. However, those positions that require special qualifications or training (e.g., dealer and managerial jobs) would be filled by experienced candidates from outside of the area. This trend would continue until training facilities could be established in Mohave County, and new workers could gain experience.

Mohave County's wage and salary work force numbered about 15,000 in 1983. The four industries with the greatest share of employment were trade, government, services and manufacturing, respectively. The unemployment rate was 15.1 percent. Legalized casino gambling would generate a large number of service jobs, making that industry the largest employer in the county. Spin-off employment would be created in almost all other industries, especially retail trade, construction and government. The unemployment rate would drop sharply in the short term.

Lake Havasu City is where most of the county's manufacturing jobs are located. Service and retail trade employment is also strong. Approximately 6,400 persons comprised the wage and salary work force in 1983. Most business establishments serve the tourism industry or provide support services for the community's population. The city's dependence on manufacturing would be reduced as it became more dependent on tourism.

Population growth would occur rapidly at first. Experienced gaming employees would arrive in need of housing and other community support services such as police, roads and schools. Unless land were available for "sprawl development," population density would increase, causing land prices to rise and housing to become more expensive. The fast rate of development combined with a large transient gaming population would probably cause the crime rate to rise. Echoes of this trend can be seen in Atlantic City, New Jersey.

The city's economy would not need restructuring. The present economy would be expanded with the service and retail trade industries becoming dominant. In the long run, population growth would meet the demand for workers and unemployment rates would stabilize. Tourism revenues for retail trade would depend largely upon the type of development that would occur, such as adequate parking facilities and integrated forms of family leisure. New casino operations in Laughlin, Nevada would also be affected.

The nature of existing social relationships in the area would surely change. The around-the-clock operation of the gaming industry would alter social activity in the area. The level of community cohesion among residents would be reduced as a transient population dispersed through the area. The small town atmosphere would probably disappear.

Attorney General Bob Corbin has stated that he is "vehemently opposed to the legislation of casino gambling or any other gaming in Arizona." He stresses the increased crime rates among gaming cities such as Las Vegas, Nevada and Atlantic City, New Jersey following the legalization of casino gambling. This, says Corbin, is "the price our state would have to pay against possible economic benefits." Proponents of gaming argue that these problems are more a result of growth than of gaming alone, and there would be less of a problem in nonmetropolitan areas.

In either case, there are positive and negative aspects of gaming development. The ultimate decision rests with the people of Arizona. In the meantime, we can watch the development of other small gaming towns in Nevada, such as Laughlin, to see how they handle gaming expansion and its economic and social consequences. We do not know if gaming on the river is consistent with Mr. McCulloch's dream, but permitting it or not is an important issue facing our state. Let's make that choice with as much information and insight as we can acquire.

Guy R. Wilson

TABLE 1
NEVADA AND LAS VEGAS SMSA
AVERAGE NUMBER OF FIRMS, EMPLOYMENT AND GROSS AVERAGE WAGE BY INDUSTRY FOR 1982

	NEVADA			LAS VEGAS SMSA		
	AVERAGE NUMBER OF FIRMS	AVERAGE ANNUAL EMPLOYMENT	AVERAGE WAGE	AVERAGE NUMBER OF FIRMS	AVERAGE ANNUAL EMPLOYMENT	AVERAGE WAGE
TOTAL	21,716	405,700	$16,496	10,469	221,200	$16,383
Mining	394	6,800	25,296	41	500	22,952
Construction	2,796	20,200	25,547	1,364	14,100	25,181
Manufacturing	841	18,800	19,282	339	6,900	20,202
T.C.P.U.	773	24,900	20,716	334	13,200	20,468
Trade	6,544	80,700	12,531	3,180	45,800	12,391
F.I.R.E.	2,103	18,000	16,106	1,089	10,300	15,992
Service	7,811	177,600	15,182	4,038	104,500	15,443
Hotel/Gaming/ Recreation	1,070	116,700	13,223	544	70,100	14,275
Government	439	58,100	19,122	94	25,900	19,774

TABLE 2
STATE OF NEVADA
AVERAGE ANNUAL JOB OPENINGS
1976-1985 PERIOD

OCCUPATIONAL CATEGORY	OPENINGS DUE TO GROWTH	OPENINGS DUE TO SEPARATION
TOTAL	18,700	11,100
Service*	5,100	3,100
Clerical	3,800	2,200
Managerial	2,500	1,700
Crafts	2,200	1,100
Professional and Technical	1,800	1,100
Operative	1,500	700
Sales	1,000	600
Laborers, Excluding Farm	700	300
Farmers and Farm Workers	-30	300

*Includes occupations such as food service workers, gambling dealers, change persons, keno runners, etc.

TABLE 3
EMPLOYMENT PROJECTIONS BY OCCUPATION IN THE GAMING/HOTEL INDUSTRY
ESTIMATED FOR 1984
SELECTED OCCUPATIONS

	LAS VEGAS SMSA	RENO SMSA	BALANCE OF STATE
Gaming Change Persons	2,970	1,840	840
Cage Cashiers	1,700	820	150
Desk Clerks	1,110	340	230
Coin Machine Servicers/ Repairers	480	460	240
Bartenders	3,480	1,140	950
Box Tenders, Dice	930	130	20
Craps (Dice) Dealers	3,310	1,250	890
Blackjack (21) Dealers	8,580	4,610	1,920
All Other Dealers	1,870	580	390
Keno or Sheet Writers	1,850	1,080	440
Keno Checkers	250	90	60
Keno Runners	810	390	230
Carousel Workers (Barkers)	780	230	90
Key Persons	440	450	160
Other Gaming Occupations	1,930	250	80
Gaming Supervisors	4,200	1,490	820

TABLE 4
STATE OF NEVADA
MONTHLY WAGE RANGES - PRIVATE SECTOR
1979
SELECTED OCCUPATIONS

OCCUPATIONS	NORTHERN	SOUTHERN	RURAL
Baker	$ 804 - 1,181	$1,106 - 1,253*	$666 - 858
Bartender	678 - 846	N/A	663 - 813
Change Person	623 - 760	662 - 730*	610 - 678
Chef	1,116 - 1,496	1,295 - 1,982	670 - N/A
Cook	805 - 1,122	1,038 - 1,261	568 - 733
Fry Cook (Short Order)	764 - 941	726 - 1,004*	555 - 677
Dealer	558 - 757	551 - 780	577 - 744
Dining Room Attendant	518 - 617	593 - 666*	490 - 643
Host/Hostess	590 - 767	816 - 968*	508 - 593
Hotel Clerk	622 - 811	893 - 1,088*	553 - 746
Kitchen Helper	577 - 724	759 - 904*	449 - 602
Porter	591 - 769	699 - N/A	508 - 583
Room Cleaner	581 - 721	652 - 778*	607 - 729
Security Officer	735 - 964	727 - 1,089	N/A
Slot Mechanic	824 - 1,475	991 - 1,556	761 - 1,214
Waiter/Waitress	502 - 565	533 - 568*	495 - 607
Keno Writer	642 - 855	645 - 900	573 - 723

* Reported 50 percent or more employees as union members.

N/A = Not available.

CULINARY UNION WAGE RATES (DAILY BASIS)
SELECTED OCCUPATIONS
LAS VEGAS AREA
1979

OCCUPATIONAL CLASSIFICATION	APRIL 1980	APRIL 1981	APRIL 1982	APRIL 1983
Casino Classifications				
Change Person	$36.60	$40.60	$43.80	$47.00
Carousel Attendant	35.00	37.80	40.60	43.00
Booth Cashier	51.70	57.30	62.10	66.50
Casino Porter	43.05	47.05	50.25	53.45
Dining Room Classifications				
Cashier or Checker	52.60	58.20	63.00	67.40
Busperson	30.50	33.30	36.10	38.50
Showroom Reservation Clerk	51.00	56.60	61.40	65.80
Sommelier (Wine Server)	38.60	41.40	44.20	46.60
Host Person	49.80	55.40	60.20	64.60
Waiter/Waitress	28.80	31.60	34.40	36.80
Cocktail Server	28.80	31.60	34.40	36.80
Fountain Worker (Snack Bar, Salad Maker, etc.)	37.15	39.95	42.75	45.15
Bar Classifications				
Bartender	57.00 to 61.00	62.60 to 66.60	67.40 to 71.40	71.80 to 75.80
Bartender Apprentice	41.40	45.40	48.60	51.80
Banquet Bartender*	7.05*	8.75*	8.35*	8.90*

INTERPRETING THE CPI

One of the most widely used and least understood measures of economic activity is the Consumer Price Index (CPI). Confusion surrounding the CPI increased in 1978 when the Bureau of Labor Statistics began publishing two indexes -- the traditional one for urban wage earners and clerical workers (CPI-W) and a new one designed to represent all urban consumers (CPI-U). A little background on the development of these indexes may help to dispel some of the problems concerning the use and understanding of the CPI.

The first consumer price index was compiled by the government in 1919 to aid the Shipbuilding Labor Adjustment Board in arriving at a fair wage scale for workers in 32 shipbuilding and industrial centers. The index has been expanded and modified many times over the years, but the concept has remained the same: a market basket of consumer goods, selected to represent typical purchasing patterns, is priced periodically, with the weighted average of all price changes tracked through changes in the level of the price index.

Until the 1978 revision, the CPI represented the purchasing patterns of urban wage earners and clerical workers, or about 50 percent of the U.S. population. The CPI-W continues to be reported monthly, but a new index, the CPI-U, was added. By surveying the purchases of "all urban consumers," this index covers 80 percent of the U.S. population. No attempt is made to measure average price changes for rural families, military personnel or institutional populations. Unlike the CPI-W, the CPI-U includes the self-employed, the unemployed and urban consumers not in the labor force. About 250 of the 400 items in the fixed market basket surveyed by the CPI-W are included in the CPI-U, although product categories in the CPI-U are more broadly defined. The weights assigned to each product covered by both indexes result from the Consumer Expenditure Survey conducted during the 1972-1974 period.

Changes in the level of the index over time provide a measure of the rate of inflation faced by consumers. A value of 100 is assigned to the index in mid-year 1967. In other words, when CPI-U rose to 300.3 in August of 1983, the average level of consumer prices had tripled during the previous sixteen years. In recent months, the index has risen at a more moderate rate of about five percent per year. During 1983, a year of relatively low inflation, consumer prices rose by an average of 3.2 percent over 1982 as measured by the CPI-U (or 3.0 percent, according to the CPI-W).

In recent years, the CPI has drawn much attention and criticism. Many collective bargaining agreements have been negotiated to include cost-of-living adjustments (COLAs) based on changes in the CPI. Naturally, disputes have developed over the belief that the CPI either understates or overstates the actual rate of inflation. A major complaint is that the CPI fails to reflect shifts in consumer spending patterns over time. For example, if the price of beef rises rapidly, shoppers are likely to shift some of their purchases to items such as chicken or pork. However, the weight assigned to beef in the CPI's fixed market basket stays the same. Although beef prices may have gone up, the consumer's "cost of living" may not increase if cheaper items are substituted. In general, items which have increased in price very rapidly may be weighted too heavily, since the substitutions consumers are likely to make cannot be accounted for. This presents a problem only when the CPI is interpreted to be a "cost-of-living index." It is not; the CPI is merely a measure of the average change in consumer prices over time.

At times, housing prices and interest rates have caused the CPI to increase rapidly, spurring complaints that these components of the index have been weighted too heavily. Only about six percent of all consumers will buy a home in any given year, yet the index would include the cost of purchasing a home every month. The problem, as seen by the Bureau of Labor Statistics, was not the weight given to housing costs, but it was recognized that people buy homes for two reasons -- for use as housing and as an investment. In order to separate the value of a home as an asset from its value as housing, BLS developed a "rental equivalent" measure of housing costs. The CPI-U incorporated this measure beginning in January of 1983, while the CPI-W will begin using it in January of 1985. Much of the difference in the indexes observed in the last year or so can be attributed to the different methods of measuring housing costs.

Despite its limitations as a measure of the cost of living, the CPI (especially the CPI-W) continues to be used to adjust Social Security benefits, federal pension benefits and cost-of-living components of union-negotiated contracts. It is also used to administrate wages and salaries, rents and other costs and prices needing periodic revision. No wonder there are constant calls for more frequent revision and more improvement in the CPI! However, the last systematic revision required nearly eight years and over $50 million. At a time when budget deficits represent a serious burden to the economy and government spending is under close scrutiny, it is difficult to justify committing massive amounts of money to the revision process. BLS does a pretty good job with the current methodology. As long as we don't expect a sophisticated and accurate cost-of-living measure, something the CPI is not designed to be, we can expect the CPI to do what it can do: measure changes in consumer prices.

Brian Cary

Editor's Note: The Bureau of Labor Statistics held its Centennial Conference June 5-7 in Phoenix. BLS Commissioner Janet Norwood announced that Phoenix will be included among the metropolitan areas regularly sampled for price data when the next CPI revision is complete. However, BLS will not add Phoenix to the list of cities for which local price indexes are published. The best source of price data for the Phoenix metropolitan area will continue to be the quarterly CPI produced by Arizona State University's Bureau of Economic and Business Research.

Ken Dalton, head of the BLS Office of Prices and Living Conditions, announced that results from the 1981-83 Consumer Expenditures Survey are being compiled and a revised CPI will be published beginning in January 1987.

CONSUMER PRICE INDEX FOR URBAN WAGE EARNERS AND CLERICAL WORKERS
1967-1982

YEAR	INDEX	PERCENT CHANGE	YEAR	INDEX	PERCENT CHANGE
1967	100.3	4.2	1976	170.5	5.8
1968	104.2	4.2	1977	181.5	6.5
1969	109.8	5.4	1978	195.3	7.6
1970	116.3	5.9	1979	217.7	11.5
1971	121.3	4.3	1980	247.0	13.5
1972	125.3	3.3	1981	272.3	10.2
1973	133.1	6.2	1982	288.6	6.0
1974	147.7	11.0	1983	297.4	3.0
1975	161.2	9.1			

NEW POVERTY INCOME GUIDELINES ISSUED

The Department of Health and Human Services issued new poverty income guidelines on February 27, 1984. The guidelines listed below reflect changes in the Consumer Price Index. These poverty income guidelines are used as an eligibility criterion by a number of federal programs including JTPA. It should be noted that Lower Living Standard Income Levels (LLSIL) were not revised for fiscal years 1983 or 1984 by the Employment and Training Administration (ETA), U.S. Department of Labor, because the Bureau of Labor Statistics no longer publishes the lower family budget data which ETA used to determine the LLSIL.

The definitions used in determining "family size" and "income" are derived for the most part from language used by the U.S. Bureau of the Census "Current Population Reports." Prior to 1981, there was a distinction between poverty guidelines for farm families and nonfarm families. The poverty guidelines given below are applicable to both farm and nonfarm families.

By definition, a "family" is a group of two or more persons related by birth, marriage or adoption who reside together; all such related persons are considered members of one family. If a household contains more than one family, the poverty guidelines are applied separately to each family.

A "family size of one" is a person 15 years old or over (other than an inmate of an intitution) who is not living with any relatives. Examples of unrelated individuals residing with others include a lodger, a foster child, a ward or an employee.

"Income" refers to total annual cash receipts before taxes from all sources. These receipts include money wages and salaries before any deductions, but do not include food or rent in lieu of wages. They also include net receipts from nonfarm or farm self-employment.

Income also includes regular payments from social security, railroad retirement, unemployment compensation, strike benefits from union funds, veterans' benefits, public assistance including Supplemental Security Income, training stipends, alimony, child support, private pensions, regular insurance or annuity payments, income from dividends, interest, rents, royalties, periodic receipts from estates or trusts and military family allotments or other regular support from an absent family member or someone not living in the household.

"Income" for eligibility purposes does not include capital gains, any assets drawn down as withdrawals from a bank, the sale of property, a house, a car, tax refunds, gifts, lump-sum inheritances, one-time insurance payments or compensation for injury. Also excluded are non-cash benefits such as the employer-paid or union-paid portion of health insurance, food or rent received in lieu of wages, the value of food or fuel produced and consumed on farms, the imputed value of rent from owner-occupied nonfarm or farm housing and such federal programs as Medicaid, food stamps and public housing.

Jeffrey D. Bowman

POVERTY INCOME GUIDELINES FOR ALL STATES
(except Alaska and Hawaii)

Size of Family Unit	Poverty Guidelines
1	$ 4,980
2	6,720
3	8,460
4	10,200
5	11,940
6	13,680
7	15,420
8	17,160

For family units with more than 8 members, add $1,740 for each additional member.

Arizona Labor Force and Employment

May 1984 (in thousands)

	ARIZONA				
				-- Amt Change --	
	May.* 1984	Apr. 1984	May. 1983	Apr. to May.	1983 to 1984
TOTAL CIVILIAN LABOR FORCE	1402.8	1406.1	1381.6	-3.3	+21.2
Total Unemployment	71.6	71.1	131.0	+0.5	-59.4
Rate	5.1	5.1	9.5	---	---
Rate (Sea. Adj.)**	5.3	5.2	9.8	---	---
Total Employment	1331.2	1335.0	1250.6	-3.8	+80.6

THE ABOVE LABOR FORCE STATISTICS SHOULD

NONAGRICULTURAL WAGE AND SALARY EMPLOYMENT BY PLACE OF WORK

TOTAL WAGE AND SALARY	1138.8	1138.1	1064.8	+0.7	+74.0
Manufacturing	166.6	165.6	153.4	+1.0	+13.2
Durable Goods	131.0	129.9	119.2	+1.1	+11.8
Stone, Clay and Glass	7.0	7.0	6.0	+0.0	+1.0
Primary and Fabricated Metals	15.2	14.9	14.5	+0.3	+0.7
Primary Metals	6.5	6.3	6.6	+0.2	-0.1
Fabricated Metals	8.7	8.6	7.9	+0.1	+0.8
Machinery	65.4	65.1	60.6	+0.3	+4.8
Other Durable Goods	43.4	42.9	38.1	+0.5	+5.3
Aircraft and Missiles	19.4	19.1	17.5	+0.3	+1.9
Lumber and Wood Products (Except Furniture)	6.9	6.7	6.1	+0.2	+0.8
All Other Durable Goods	17.1	17.1	14.5	+0.0	+2.6
Nondurable Goods	35.6	35.7	34.2	-0.1	+1.4
Food and Kindred Products	7.7	7.7	7.9	+0.0	-0.2
Apparel	5.3	5.4	5.1	-0.1	+0.2
Printing and Publishing	12.8	12.8	12.0	+0.0	+0.8
All Other Nondurable Goods	9.8	9.8	9.2	+0.0	+0.6
Mining and Quarrying	13.9	13.6	14.6	+0.3	-0.7
Copper Mining	10.9	10.7	11.6	+0.2	-0.7
Other Mining and Quarrying	3.0	2.9	3.0	+0.1	+0.0
Construction	89.3	88.1	75.3	+1.2	+14.0
Trans., Communications, and Public Utilities	58.3	58.6	56.6	-0.3	+1.7
Transportation	24.9	24.9	23.6	+0.0	+1.3
Communications and Public Utilities	33.4	33.7	33.0	-0.3	+0.4
Trade	270.2	271.0	256.3	-0.8	+13.9
Wholesale Trade	54.2	54.4	51.1	-0.2	+3.1
Retail Trade	216.0	216.6	205.2	-0.6	+10.8
General Merchandise and Apparel	36.3	36.5	35.0	-0.2	+1.3
Food Stores	34.5	34.4	32.9	+0.1	+1.6
Automotive and Service Stations	25.1	25.1	24.2	+0.0	+0.9
Eating and Drinking Places	76.8	77.1	72.1	-0.3	+4.7
Other Retail Trade	43.3	43.5	41.0	-0.2	+2.3
Finance, Insurance, and Real Estate	68.9	68.6	65.3	+0.3	+3.6
Services and Miscellaneous	257.0	257.0	236.2	+0.0	+20.8
Hotels and Other Lodging Places	27.8	28.0	25.1	-0.2	+2.7
Business Services	54.0	53.3	46.0	+0.7	+8.0
Health Services	66.8	67.0	64.2	-0.2	+2.6
Other Services	108.4	108.7	100.9	-0.3	+7.5
Government	214.6	215.6	207.1	-1.0	+7.5
Federal	39.7	39.5	38.8	+0.2	+0.9
State and Local	174.9	176.1	168.3	-1.2	+6.6
School	108.1	109.6	102.7	-1.5	+5.4

* Preliminary

** Normal seasonal variations have been eliminated to reflect underlying economic trends.

NOTE--Prepared in cooperation with the U.S. Department of Labor, Bureau of Labor Statistics.

May 1984 (in thousands)

MARICOPA COUNTY					PIMA COUNTY				
			-- Amt Change --					-- Amt Change --	
May.* 1984	Apr. 1984	May. 1983	Apr. to May.	1983 to 1984	May.* 1984	Apr. 1984	May. 1983	Apr. to May.	1983 to 1984
887.0	889.2	852.0	-2.2	+35.0	258.4	259.3	257.7	-0.9	+0.7
34.5	34.5	62.9	+0.0	-28.4	11.2	11.5	24.0	-0.3	-12.8
3.9	3.9	7.4	---	---	4.3	4.4	9.3	---	---
4.0	4.0	7.5	---	---	4.5	4.6	9.6	---	---
852.5	854.7	789.1	-2.2	+63.4	247.2	247.8	233.7	-0.6	+13.5

T BE USED FOR ECONOMIC ASSISTANCE PROGRAMS.

NONAGRICULTURAL WAGE AND SALARY EMPLOYMENT BY PLACE OF WORK

MARICOPA May.* 1984	Apr. 1984	May. 1983	Apr. to May.	1983 to 1984	PIMA May.* 1984	Apr. 1984	May. 1983	Apr. to May.	1983 to 1984
743.2	742.7	685.1	+0.5	+58.1	209.7	209.5	198.0	+0.2	+11.7
120.2	119.9	110.2	+0.3	+10.0	28.3	28.0	26.5	+0.3	+1.8
95.6	95.0	86.8	+0.6	+8.8	23.5	23.2	21.8	+0.3	+1.7
4.3	4.2	3.6	+0.1	+0.7					
9.5	9.5	9.3	+0.0	+0.2					
52.5	52.2	48.0	+0.3	+4.5					
29.3	29.1	25.9	+0.2	+3.4					
24.6	24.9	23.4	-0.3	+1.2	4.8	4.8	4.7	+0.0	+0.1
5.1	5.2	5.5	-0.1	-0.4					
3.0	3.2	2.7	-0.2	+0.3					
9.4	9.4	8.8	+0.0	+0.6					
7.1	7.1	6.4	+0.0	+0.7					
0.7	0.7	0.6	+0.0	+0.1	3.7	3.7	3.8	+0.0	-0.1
62.3	61.4	52.2	+0.9	+10.1	18.1	17.9	14.6	+0.2	+3.5
37.9	37.8	36.0	+0.1	+1.9	8.9	8.9	8.7	+0.0	+0.2
16.6	16.6	15.6	+0.0	+1.0	4.0	4.0	3.6	+0.0	+0.4
21.3	21.2	20.4	+0.1	+0.9	4.9	4.9	5.1	+0.0	-0.2
184.4	184.8	173.2	-0.4	+11.2	43.8	44.1	42.8	-0.3	+1.0
43.3	43.0	40.7	+0.3	+2.6	6.3	6.4	5.9	-0.1	-0.4
141.1	141.8	132.5	-0.7	+8.6	37.5	37.7	36.9	-0.2	+0.6
23.4	23.6	22.2	-0.2	+1.2	6.5	6.5	6.5	+0.0	+0.0
22.3	22.2	20.8	+0.1	+1.5	5.5	5.5	5.5	+0.0	+0.0
16.1	16.2	15.3	-0.1	+0.8	4.0	4.0	4.1	+0.0	-0.1
49.1	49.4	46.1	-0.3	+3.0	14.0	14.2	13.4	-0.2	+0.6
30.2	30.4	28.1	-0.2	+2.1	7.5	7.5	7.4	+0.0	+0.1
54.0	53.3	51.0	+0.7	+3.0	9.6	9.5	9.0	+0.1	+0.6
175.0	175.3	158.3	-0.3	+16.7	48.4	48.5	45.6	-0.1	+2.8
16.3	16.7	14.6	-0.4	+1.7	4.6	4.6	4.0	+0.0	+0.6
44.9	44.2	38.0	+0.7	+6.9	7.5	7.5	6.4	+0.0	+1.1
45.1	45.3	43.1	-0.2	+2.0	13.8	13.9	13.7	-0.1	+0.1
68.7	69.1	62.6	-0.4	+6.1	22.5	22.5	21.5	+0.0	+1.0
108.7	109.0	103.6	-0.3	+5.1	48.9	48.9	47.0	+0.0	+1.9

-- Prepared by Labor Market Information, Research and Analysis (CPS-MOD, 1/84)

NONMETROPOLITAN COUNTIES LABOR FORCE AND EMPLOYMENT

May 1984 (Preliminary)

	Apache	Cochise	Coconino	Gila	Graham	Greenlee	La Paz
TOTAL CIVILIAN LABOR FORCE*.	14,100	28,275	34,200	13,900	7,375	3,825	4,650
Total Unemployment	1,475	2,075	2,300	1,625	625	250	550
Rate	10.5%	7.3%	6.7%	11.7%	8.5%	6.5%	11.8%
Rate (Seas. Adj.)**. . . .	12.1%	7.6%	7.3%	12.7%	9.0%	7.3%	-INA-
Total Employment	12,625	26,200	31,900	12,275	6,750	3,575	4,100

THE ABOVE LABOR FORCE STATISTICS SHOULD NOT BE USED
FOR ECONOMIC ASSISTANCE PROGRAMS

TOTAL WAGE AND SALARY. . . .	13,275	21,500	30,175	9,950	4,250	3,100	2,325
Manufacturing.	675	1,525	2,525	1,450	100	325	100
Mining and Quarrying	50	350	50	1,625	100	1,650	0
Construction	1,575	900	1,025	475	125	50	50
Trans., Comm., & Pub. Util..	1,625	1,350	2,150	250	150	50	50
Trade.	1,050	4,375	7,025	1,725	1,150	350	800
Fin., Insur., & Real Estate.	175	625	600	225	100	25	100
Services and Miscellaneous .	3,200	2,625	7,400	1,525	700	100	650
Government	4,925	9,750	9,400	2,675	1,825	550	575

	Mohave	Navajo	Pinal	Santa Cruz	Yavapai	Yuma
TOTAL CIVILIAN LABOR FORCE*.	21,500	24,075	29,875	8,250	30,125	36,050
Total Unemployment	1,825	2,075	3,200	1,000	2,450	5,000
Rate	8.5%	8.6%	10.7%	12.1%	8.1%	13.9%
Rate (Seas. Adj.)**. . . .	9.0%	10.0%	11.1%	14.2%	8.6%	-INA-
Total Employment	19,675	22,000	26,675	7,250	27,675	31,050

THE ABOVE LABOR FORCE STATISTICS SHOULD NOT BE USED
FOR ECONOMIC ASSISTANCE PROGRAMS

TOTAL WAGE AND SALARY. . . .	15,150	17,225	22,675	7,275	16,700	22,200
Manufacturing.	2,125	1,925	2,600	875	2,075	1,725
Mining and Quarrying	250	1,075	3,925	25	350	50
Construction	875	600	625	225	925	1,500
Trans., Comm., & Pub. Util..	950	1,575	1,000	550	875	1,000
Trade.	4,300	3,050	3,775	2,950	4,525	6,875
Fin., Insur., & Real Estate.	725	275	725	225	725	750
Services and Miscellaneous .	2,825	4,250	2,125	1,050	3,125	3,925
Government	3,100	4,475	7,900	1,375	4,100	6,375

*Adjusted to the Current Population Survey (CPS) to reflect place of residence.
**Seasonal adjustment not applicable for economic assistance programs.

NOTE--Series for Yuma and La Paz counties start January 1983. Data are not comparable to any past series.

ARIZONA LABOR FORCE AND EMPLOYMENT FOR ECONOMIC ASSISTANCE PROGRAMS

April 1984 (Final)

County	Civilian Labor Force	Employment	Unemployment	Rate
Statewide	1,406,081	1,334,980	71,101	5.1%
Apache	13,969	12,435	1,534	11.0
Cochise	28,204	26,150	2,054	7.3
Coconino	35,169	32,929	2,240	6.4
Gila	13,692	11,903	1,789	13.1
Graham	7,461	6,783	678	9.1
Greenlee	3,836	3,600	236	6.2
La Paz	4,717	4,174	543	11.5
Maricopa	889,177	854,683	34,494	3.9
Mohave	21,519	19,582	1,937	9.0
Navajo	24,033	21,779	2,254	9.4
Pima	259,339	247,862	11,477	4.4
Pinal	30,036	26,764	3,272	10.9
Santa Cruz	8,390	7,425	965	11.5
Yavapai	30,493	27,862	2,631	8.6
Yuma	36,046	31,049	4,997	13.9

Data have been adjusted to the 1972 Standard Industrial Classification (SIC). These figures are the only official BLS labor statistics to be used for revenue sharing purposes. They are not designed to be used as economic indicators. Note: Series for Yuma and La Paz counties start January 1983. Data are not comparable to any past series.

ESTIMATED HOURS AND EARNINGS OF PRODUCTION WORKERS IN SELECTED INDUSTRIES IN ARIZONA

May 1984

INDUSTRY	AVERAGE WEEKLY EARNINGS			AVERAGE WEEKLY HOURS			AVG. HOURLY EARNINGS		
	MAY * 1984	APR. 1984	MAY 1983	MAY * 1984	APR. 1984	MAY 1983	MAY * 1984	APR. 1984	MAY 1983
FOR THE STATE OF ARIZONA*									
Manufacturing	365.65	373.42	359.79	40.9	40.9	40.2	8.94	9.13	8.95
Aircraft & Missiles	INA	INA	475.30	INA	INA	42.4	INA	INA	11.21
Food & Kindred Products	315.75	315.75	332.82	38.6	38.6	38.7	8.18	8.18	8.60
Primary Metals	480.93	473.37	457.07	39.1	37.9	37.9	12.30	12.49	12.06
Machinery	330.89	341.07	326.80	40.6	40.7	40.0	8.15	8.38	8.17
Copper Mining	549.19	525.60	517.72	41.7	39.4	39.4	13.17	13.34	13.14
Construction	424.82	420.95	442.67	37.2	36.7	37.9	11.42	11.47	11.68
Utilities	553.78	531.27	487.10	43.4	42.4	42.1	12.76	12.53	11.57
Retail Trade**	248.68	248.68	208.12	34.3	34.3	33.3	7.25	7.25	6.25
Wholesale Trade	346.09	353.63	343.71	38.2	39.6	40.2	9.06	8.93	8.55

* Preliminary

** Excludes eating and drinking places.

NOTE--These estimates are based on a sample of full and part-time production and related employees whose payroll and hours are reported for the pay period which includes the 12th of the month. Prepared in cooperation with the U.S. Department of Labor, Bureau of Labor Statistics.

--Prepared by Labor Market Information, Research and Analysis (1972 SIC, 1/84)

THE ARIZONA LABOR FORCE IN MAY 1984

The increase in the statewide unemployment rate in May is the first such occurrence in 14 consecutive months. While on the surface this might appear to be reason for concern, the problem is not as troublesome as it might first appear. Particularly in the Phoenix and Tucson metropolitan areas, which contain nearly 85 percent of the jobs in the state, the labor market is at or very near full employment. Since many jobs are available, this encourages people to either enter the labor market if they are already here or to move to the state in search of employment. This appears to be exactly what is happening. Since people usually experience some period of unemployment while they look for a job, the unemployment rate increases.

At this time of the year, these factors are particularly important. Many people are graduating and they need to decide if they will continue their education or if they will enter the labor market. As well, the summer months usually account for the largest migration to the state. While we do seasonally adjust for these factors, the process is not perfect. The overall impact, which may seem paradoxical, is that an improving economy can produce an increase in the unemployment rate.

Manufacturing set another record level of employment in May as 1,000 new jobs were created, pushing overall employment to 166,600. The strength was spread throughout the durable goods sector as lumber, aircraft and electronics firms all added to their staffs. Not only was it encouraging to see these businesses add to their staffs after some inconsistent performances in the last few months, but it was also good to see that many jobs were created in the state's rural areas. Many of the state's rural counties have not been participating in the economic recovery.

Two other industries of noteworthy importance were construction and the trade/services industries. Although interest rates have been rising steadily during the last few months, construction employment has continued to expand in both the metropolitan and nonmetropolitan areas. Another 1,200 new jobs brought construction employment to 89,300, just short of the record level of 90,600 recorded in August 1979.

In the trade/services industries, the significant factor is not that employment increased, because it, in fact, dropped by a combined total of 800 jobs. Rather, the importance is that the decline was not greater. Usually with the winter tourism season coming to an end, larger numbers of people become unemployed. But the overall strength of these two industries, which account for over 45 percent of the employment in the state, has helped to moderate the usual seasonal decline.

Overall, the outlook for the state remained very strong in May. Although unemployment rose in May and will probably continue to rise intermittently during the rest of this year, this is probably more a sign of strength than weakness. And job creation too is very good -- not at the stratospheric growth rates of the 1970s, but still much stronger than anything yet experienced in the 1980s or by nearly any other state in 1984.

1984 OCCUPATIONAL EMPLOYMENT SURVEY OF NONMANUFACTURING INDUSTRIES

Each year, a representative sample of Arizona employers is contacted for the purpose of updating occupational data by industry.

The Arizona Occupational Employment Statistics (OES) Program is a federal-state cooperative program which conducts surveys by county to determine current occupational employment and to estimate demand for occupational skills in each industry. Data on the number employed and trends in employment for specific occupations are used to estimate future job openings, to aid in occupational counseling and to plan employment and training programs.

OES surveys are conducted in a three-year cycle so that occupational data for one-third of the industries are updated each year. Employers are selected to reflect a cross section of all sizes of firms by using standard sampling techniques.

In 1984, the OES unit will collect data from the following nonmanufacturing industries: mining (including oil and gas extraction); construction; finance, insurance, and real estate; and services (excluding hospitals and educational services).

Employers will be asked through personal interview or mail-out questionnaire to provide a count of their employees by occupation. Additionally, OES is interested in information employers wish to volunteer regarding trends and occupational changes within their industry.

If you would like more information on the OES Program, or would like to receive copies of the Occupational Profiles which are produced from the information developed by the surveys, telephone 255-3876, or outside the Phoenix metropolitan area call 1-800-321-0381

ARIZONA UNEMPLOYMENT INSURANCE ACTIVITIES - APRIL 1984

	April 1984	March 1984	April 1983	% Change From One Year Ago
Arizona Claimants Served**	28,149	30,282	64,017	-56.0%
Arizona Average Weeks Unemployed***	8.5	9.3	10.3	-17.5%
Arizona Benefits Paid**	$ 8,087,757	$ 10,855,611	$ 20,009,223	-59.6%
Arizona Trust Fund Balance	$183,522,541	$160,999,182	$173,990,232	+ 5.5%

*Estimated **All Programs ***UI Only

SUPREME COURT RULES LEGAL FIRMS CANNOT DISCRIMINATE IN AWARDING PARTNERSHIPS

The Supreme Court, voting 9-0, has ruled that partnership decisions by law firms are not exempt from a federal law banning sex discrimination in employment. Chief Justice Warren Burger, writing for the court, said that under Title VII of the 1964 Civil Rights Act, promotion to partnership is a "benefit" of employment that cannot be denied on a discriminatory basis.

Many lawyers find employment in corporations and government (where women lawyers have made real inroads), but generally, practice in a major private law firm is viewed as the most prestigious job for a law graduate. While data on partnerships in major Arizona firms are unavailable, national surveys point to slow progress for women lawyers: in a survey of major Los Angeles firms (Arizona Business Gazette, November 21, 1983), women were found to represent only 4 percent of partners in the firms surveyed while occupying 25 percent of associate positions. Similar discrepancies betwen female partners and associates are reported in a national survey appearing in The National Law Journal (May 21, 1984).

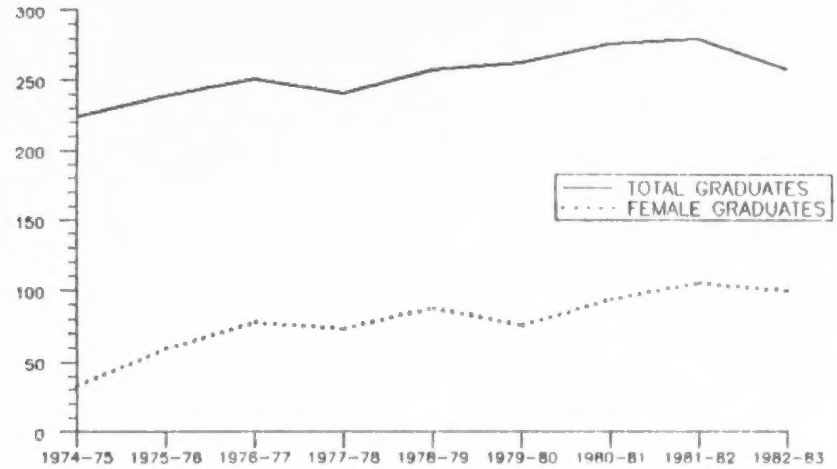
What is known about Arizona is that here, as elsewhere, the number of women graduating from the state's two law schools has increased steadily over the past decade (Figure 1). For the academic year 1974-75, women comprised 14.7 percent of law school graduates; by 1982-83, that figure had risen to 38.4 percent. During that same period, membership in the Arizona State Bar nearly doubled, from 4,258 in 1974 to 8,004 in 1983 (Figure 2). The percentage of female members of the Bar is unavailable, but according to data from the Equal Employment Opportunity Special File, prepared by the U.S. Bureau of the Census, women comprised 14.0 percent of Arizona's lawyers and 22.6 percent of the judges in 1980. The latter figure exceeds the national average of about 15 percent.

Because of the increase in female law school graduates over the past decade, the timing of the court's decision may be particularly significant. Typically, associates in major firms serve an average of five to 10 years before they are named as partners or fired. This five to 10-year period coincides precisely with the influx of women into the legal profession and as a consequence, the court's decision may pave the way for many more women to gain partnership status.

JoAnn H. Wilson

FIGURE 1

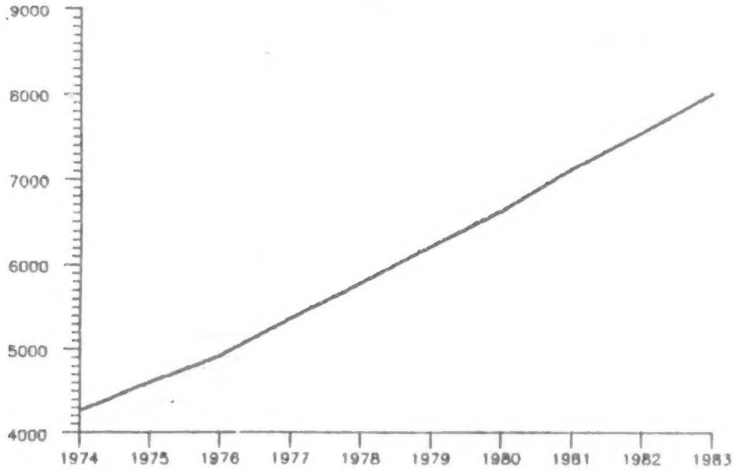
GRADUATES FROM ARIZONA LAW SCHOOLS
ACADEMIC YEARS 1974-75 TO 1982-83



SOURCE: ARIZONA COMMISSION FOR POSTSECONDARY EDUCATION, HIGHER EDUCATION GENERAL INFORMATION SURVEY (HEGIS).

FIGURE 2

ARIZONA STATE BAR MEMBERSHIP
1974 - 1983



SOURCE: STATE BAR OF ARIZONA.

NEW DEVELOPMENTS

Construction - Freezer Services, Inc. plans to build a 200,000 square-foot service warehouse facility in west Phoenix. Phase I is scheduled for completion by December 1984 and will provide blast freezing, consolidation and distribution services.

Manufacturing - Tucson-based Burr-Brown Corp. has announced an agreement with Intelligent Instrumentation Inc. of Tucson to pursue the development of a broad line of hardware and software to capitalize on the growing power of personal computers and their increasing use in instrumentation systems for data acquisition, test, measurement and control. Burr-Brown will provide initial funding for the venture, referred to as I3. Also announced was the first new product of the joint effort, the PCI-3000, a modular, flexible system of hardware and software which interfaces easily with personal and professional computers via standard communication protocols.

Steelco, a Southern California-based manufacturer, has begun operations in Casa Grande. The company produces frames for mobile homes, commercial office trailers, recreational vehicles and other types of equipment trailers. The company ultimately expects to hire 30 to 35 people. The majority of the frames that are manufactured in Casa Grande will be shipped to the Phoenix area.

Brush Wellman Inc., producers of ceramic products for high technology applications, is expanding its Tucson production facilities and plans to add 50 to 70 workers by January to its existing staff of 200. Officials of the Cleveland-based company are also considering adding a second additional building in three to four years with maximum employment eventually reaching 400 to 500.

Two wholly-owned subsidiaries of General Instruments located in Tucson -- RF Systems and Jerrold Electronics Corp. -- will be moving their operations to the North Tucson Business Park. The move will create positions for an additional 50 to 60 new employees, with expansion capabilities that will accomodate more than 200 additional employees.

Mining - The Phelps Dodge Corp. reopened its Ajo smelter with a work force of 115, including 70 to 75 new hires. A scheduled 14-week maintenance beginning July 1 of the Phelps Dodge smelter in Hidalgo, New Mexico, was cited by company officials as one reason for bringing the Ajo smelter back into operation. The Ajo smelter, which recently underwent more than $1 million in repairs to meet Environmental Protection Agency standards, is expected to remain open after the Hidalgo smelter comes back on line.

Three major copper producers have asked unions leaders to reopen labor agreements. Kennecott, the nation's largest copper producer, is seeking to renegotiate a three-year agreement reached in April 1983. The agreement affects 600 workers at the Ray open-pit mine near Kearny as well as workers in four other states. The company has announced plans to lay off 2,000 of its 4,400 employees in the Utah Copper Division by July 1 unless unions agree to drastic cost-cutting concessions. Apparently, workers at the Ray open-pit mine are not affected.

Union concessions are also being sought by Magma Copper Co., which employs about 2,850 hourly workers at its underground mine in San Manuel, and by Inspiration Consolidated Copper Co., which has about 950 hourly employees.

Transportation - The three Phoenix-owned airports - Sky Harbor, Deer Valley and Litchfield - contributed $4.8 billion to the economy of Maricopa County in 1983 and accounted directly or indirectly for 91,533 jobs with payrolls of $1.5 billion. This is according to a study conducted by Dr. Lee R. McPheters, director of the Arizona State University Bureau of Business and Economic Research. According to McPheters, the primary economic impact of the three airports is 36,613 jobs, a payroll of $604.4 million and total expenditures of $1.9 billion.

Automobiles - Ford Motor Co. has expressed an interest in opening a second assembly plant in Sonora -- this time for air conditioners. The company announced plans in January to build a $500 million auto assembly plant. The proporsed second plant would employ 150 to 250 workers, and would cover about 25,000 square feet. The product would be used for Hermosillo compacts and for other Fords.

Government - Arizona state government is adding a day-care center at the Capitol Mall for state employees' children. State officials believe that the center will cut absenteeism, boost productivity, improve morale and stabilize health costs. An existing building that is being vacated as several agencies move to another location will be modified to accomodate the center and bids will be sought from private day-care centers to operate the facility.

University/Industry Cooperation - The University of Arizona has received funds from private industry and the National Science Foundation to establish a Center for Microcontamination Control. So far, 12 companies have each committed to spending $30,000 annually to establish the national clean-room research center. The center will attempt to develop products with a potential for mass production that can help the semiconductor industry keep dirt and lint from collecting on its products as they are being assembled. The university would share in the profits from any mass production resulting from the research.

Unions - Union electricians have agreed to their second major pay cut in two years. The new rate for electricians on inside commercial construction is $12 an hour, down from $16 negotiated in 1982. Coupled with the reduction to $16 an hour from $17.95 two years ago, union electricians now have agreed to work for 33 percent less than they used to make. The two-year agreement between the union and the Arizona Chapter of National Electric Contractors Association covers about 1,350 electricians in the northern two-thirds of the state, including the Phoenix area, Casa Grande, Prescott and Bullhead City. The cut is in response to competition from non-union contractors.

More than 200 steel workers who have been working at the Phelps Dodge Corp. copper smelter in Morenci have been kicked out of the United Steelworkers of America Local 616 and fined $1,000 to $2,000 each by the union for breaching a contract they made when they accepted their union membership cards. Union leaders say the action blackballs the workers from any AFL-CIO union.

Layoffs - Ingersoll-Rand has announced the sale of its Tucson unit to Stanley Works of New Britain, Connecticut which plans to move the operation to Atlanta by year's end, resulting in the loss of nearly 150 Tucson jobs. Some hand tools were assembled at the facility, but it served mainly as the Western states' distribution center for Ingersall-Rand's Proto division. The Tucson center opened in 1975.

Supreme Court Decision - The U.S. Supreme Court has upheld the "last hired, first fired" policy. While union leaders have supported senority as the fairest system of making layoffs, feminists and civil-rights leaders view the ruling as a setback to their efforts. The decision also held that someone who is laid off must prove he or she was an actual and specific victim of discrimination before being awarded back pay or being reinstated.

Retraining Grant - Yavapai College in Prescott has received a $500,000 U.S. Dept. of Labor grant to help retrain and relocate miners in Bagdad who are unemployed because of the February closing of the Cyprus Bagdad Co. copper mine there. The grant, provided under the Job Training Partnership Act, will be administered by the Arizona Department of Economic Security and will be subcontracted to the college for operation.

Job Fair - Arizona State University and four Valley agencies will sponsor the state's first Mature Adult Job Fair on October 13. The daylong session will focus on opportunities available to people over 55 who want to return to active involvement in the business world. Information can be obtained from ASU's School of Social Work.

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Arizona Labor Market NEWSLETTER
Arizona Department of Economic Security

Vol. VIII No. 8
August 1984

Unemployment Rate

Seasonally Adjusted
June*

ARIZONA	5.0%
Maricopa Co.	3.6%
Pima Co.	4.1%
UNITED STATES	7.1%

Consumer Price Index

National-May
1967 - Base Year

Wage Earner/Clerical Worker -	305.4
% Chg. Yr. Ago	3.1
All Urban -	309.7
% Chg. Yr. Ago	4.2

Phoenix-2nd Qtr.
1977 - Base Year

All Urban -	180.1
% Chg. Yr. Ago	5.6

Producer Price Index

National-June*
1967 - Base Year

All Commodities-	311.4
% Chg. Yr. Ago	3.0
Finished Goods -	291.2
% Chg. Yr. Ago	2.2

* Preliminary

Arizona's Changing Industrial Composition

There is much discussion today about the changing industrial composition of our nation's economy. We are seeing a decline in manufacturing's share of employment and the emergence of a service-producing economy. As Table 1 illustrates, Arizona is certainly typical of this trend and is, in fact, more service oriented than the nation as a whole. In 1983, the service-producing industries of transportation, communication and public utilities (TCPU), finance, insurance and real estate (FIRE), trade, services and government accounted for 73.72 percent of wage and salary employment nationally, whereas in Arizona they comprised 76.86 percent. To illustrate the increased dominance of the service-producing industries and the loss of employment share by the goods-producing sector, it is useful to compare Arizona's industrial employment composition in 1983 to that of 1971.

When comparing employment composition over time it is important to prevent cyclical fluctuations in employment from distorting the results. Similarly, the comparison interval must be long enough to define any trends that are present. For these reasons 1971 was selected. As in 1983, the number of unemployed people in the state was generally declining throughout 1971 and was 14.1 percent lower than 1970, somewhat more than the 6.0 percent decline last year. Similarly, strong employment growth was registered in both years, 6.2 percent and 3.4 percent in 1971 and 1983 respectively.

Nationally, manufacturing's share of employment has declined by 20.6 percent since 1971, dropping from the largest source of jobs in 1971 to the third largest source in 1983. This reduction took place in both durable and non-durable manufacturing. Much of this can be attributed to industries that are facing strong foreign competition, e.g., automobiles, steel, clothing, etc. In Arizona, where these industries do not predominate, the decline in manufacturing's share of employment has been far less, 4.6 percent. The majority of this was due to non-durable manufacturing's share loss of 14.2 percent.

At the county level, the story is somewhat different. In Maricopa County, even with all the growth of "high-tech" firms, durable manufacturing still lost 17.4 percent of its share of employment since 1971. In fact, manufacturing dropped from the second largest to the third largest industry in the county. However, in Pima County, manufacturing moved from the fifth largest to the fourth largest source of jobs, increasing its share of employment by 69.8 percent. The growth in durable manufacturing in Pima County has been even more astounding, a substantial 99.8 percent. Even the nonmetropolitan counties saw manufacturing increase its share 2.0 percent, moving from the fifth largest to the fourth largest industry.

In 1983, trade had the highest percentage of wage and salary employment both nationally and in Arizona with 22.80 percent and 24.17 percent respectively. Since 1971, trade's share of employment has increased by 5.8 percent nationally and 4.2 percent statewide. Although wholesale trade showed a larger percentage increase in Arizona than nationwide, the state's wholesale industry still lags behind the nation as a whole. Conversely, retail trade had a larger percentage increase in employment share nationally than in Arizona, yet retail trade's share statewide is larger than in the nation, 19.34 percent versus 16.98 percent.

Once again, an examination of the substate areas reveals that in 1983, trade was the largest source of jobs in Maricopa County, the third largest source in Pima County and the second largest industry in the nonmetropolitan counties. Further analysis indicates that wholesale trade's share of employment remained virtually unchanged in Maricopa County and expanded slightly in the rest of the state. This could be an indication of the maturing of Maricopa County's economy and the budding development in the other regions of the state. Retail trade showed very strong growth in the nonmetropolitan counties, increasing its share of employment by 13.6 percent. This is contrasted with the modest 2.9 percent increase in Maricopa County and a 3.5 percent decline in Pima County. Retail trade's loss of employment share in Pima County is probably linked to the problems experienced by Mexico's economy in recent years. As Tucson grows, this trend should be reversed. Also, much of the gain experienced in the nonmetropolitan counties was located along the Colorado River. This area should continue to expand as it becomes more popular as a vacation destination.

The second largest industry both nationwide and statewide is services. Nationally, services moved from the fourth largest industry with 16.57 percent of employment in 1971 to 21.87 percent in 1983. Similarly, in Arizona, services increased its share of employment during the same period by 32.2 percent to represent 22.30 percent of the state's wage and salary employment. This increase was felt throughout the state, with all three areas -- Maricopa County, Pima County and the nonmetropolitan counties -- experiencing at least a 20 percent increase in services' share of employment.

An industry that lost employment shares both nationally and in Arizona was government. In the U.S., government slipped from second to third and had 17.50 percent of employment in 1983. Similarly, government's share of Arizona's employment declined 14.7

percent and dropped from the second largest to the third largest industry, representing 18.99 percent of wage and salary jobs in 1983. This trend was present in both Maricopa and Pima counties; however, government's share of employment increased by 3.4 percent in the nonmetropolitan counties. This was probably due to the large decline in the mining industry, the growth of military installations and the large amount of land operated by the federal and state governments.

Finally, the well publicized problems of the state's mining industry are illustrated by its 62.4 percent decline in employment share since 1971 to its current share of 1.33 percent. The hardest hit areas were Pima County and the nonmetropolitan counties which experienced 69.1 percent and 50.2 percent declines respectively. In 1971, mining accounted for 11.08 percent of employment in the nonmetropolitan counties but only 5.52 percent in 1983. In fact, both manufacturing and T.C.P.U. passed mining in terms of employment share in the nonmetropolitan counties so that last year, mining ranked sixth. Statewide, mining now last in employment share among all the major industrial categories.

This analysis provides support for the notion that the U.S. and, particularly, Arizona, are moving toward a service-producing and away from a goods-producing economy. Also, while the state has seen a number of manufacturing firms locate here, manufacturing's share of employment has nevertheless declined since 1971. Part of this may be due to manufacturing's employment multiplier; i.e., for every new manufacturing job created, there is more than one job created in the service-producing industries. However, at some point, the service-producing economy becomes fairly self-supporting. Finally, the move toward a service-producing economy is not likely to result in the extinction of goods-producing industries. Rather, some equilibrium between the goods-producing and service-producing sectors will probably be reached.

David Sinclair

TABLE 1
PERCENTAGE SHARE OF WAGE AND SALARY EMPLOYMENT
U.S. AND ARIZONA

	U.S.			ARIZONA		
	1971	1983	Percent Change	1971	1983	Percent Change
Manufacturing	26.15	20.76	-20.6	15.34	14.63	- 4.6
Durable	14.94	12.15	-18.7	11.54	11.37	- 1.5
Non-durable	11.22	8.61	-23.3	3.80	3.26	-14.2
Mining	0.86	1.13	31.4	3.54	1.33	-62.4
Construction	5.20	4.39	-15.6	7.79	7.18	- 7.8
TCPU	6.29	5.49	-12.7	5.33	5.26	- 1.3
Trade	21.56	22.80	5.8	23.19	24.17	4.2
Wholesale	5.62	5.81	3.4	4.52	4.83	6.9
Retail	15.94	16.98	6.5	18.66	19.34	3.6
FIRE	5.30	6.06	14.3	5.66	6.14	8.5
Services	16.57	21.87	32.0	16.87	22.30	32.2
Government	18.09	17.50	- 3.3	22.27	18.99	-14.7

NOTE: Percentages may not total 100.00 due to rounding error.

TABLE 2
PERCENTAGE SHARE OF WAGE AND SALARY EMPLOYMENT
MARICOPA, PIMA AND NONMETROPOLITAN COUNTIES

	MARICOPA COUNTY			PIMA COUNTY			NONMETRO COUNTIES		
	1971	1983	Percent Change	1971	1983	Percent Change	1971	1983	Percent Change
Manufacturing	19.94	16.32	-18.2	7.96	13.52	69.8	9.21	9.39	2.0
Durable	15.57	12.86	-17.4	5.57	11.13	99.8	5.70	5.96	4.6
Non-durable	4.37	3.47	-20.6	2.39	2.39	0.0	3.50	3.42	- 2.3
Mining	0.09	0.09	0.0	5.92	1.83	-69.1	11.08	5.52	-50.2
Construction	7.41	7.75	4.6	9.37	7.52	-19.7	7.42	4.64	-37.5
TCPU	5.30	5.21	- 1.7	5.39	4.32	-19.9	5.38	6.46	20.1
Trade	24.80	25.32	2.1	22.19	21.81	- 1.7	19.56	22.36	14.3
Wholesale	5.96	5.93	- 0.5	2.74	3.10	13.1	2.12	2.54	19.8
Retail	18.34	19.38	2.9	19.45	18.76	- 3.5	17.44	19.82	13.6
FIRE	7.09	7.44	4.9	4.51	4.68	3.8	2.69	2.82	4.8
Services	17.16	23.17	35.0	18.13	23.28	28.4	14.91	17.95	20.4
Government	18.23	14.71	-19.3	26.53	23.08	-13.0	29.75	30.76	3.4

NOTE: Percentages may not total 100.00 due to rounding error.

FAST FOOD JOBS: AN OVERVIEW OF THE NATIONAL STUDY OF FAST FOOD EMPLOYMENT

Reprinted from *Washington Update* (June 20, 1984), a biweekly newsletter of The National Job Training Partnership, Inc.

SUMMARY

In any given week, 3.5 million people in the U.S. -- 70 percent of them age 20 or less -- can be found working in the fast food industry.

Despite the prevalence of fast food jobs, it is widely assumed they are primarily "dead-end" positions, plagued by high turnover, low morale, inadequate salaries and lack of upward mobility. Millions of Americans eat at fast food restaurants, but few -- according to popular belief -- want to work there.

To test the truth behind these assumptions, the National Institute for Work and Learning, an independent nonprofit research firm located in Washington, D.C., conducted a first-ever intensive study of employment in the fast food industry. More than 7,000 hourly employees of seven fast food companies were surveyed. Participating companies were: Arby's, Del Taco, Kentucky Fried Chicken, Krystal, McDonald's, Roy Rogers and White Castle.

Funding for the study was provided primarily by the Ford Foundation, W.R. Grace Foundation, Charles Stewart Mott Foundation and the Rockefeller Foundation. Four fast food companies also helped fund the study: Arby's, Kentucky Fried Chicken, McDonald's and Roy Rogers.

Analysis of the surveys revealed many surprises. Contrary to what might have been expected, the researchers found a good deal of job stability, relatively high levels of job satisfaction, hourly wage rates above the minimum wage, large proportions of employees who work to help support their families or themselves, and considerable positive impact on the development of work-related skills and attitudes.

On the negative side, employees felt inadequately paid, and Blacks consistently earned less than Whites and Hispanics.

The study found that a "dual labor market" exists within the fast food industry. For many -- perhaps most -- employees, the fast food job is part of the "secondary labor market" characterized by low pay, limited training, little career mobility and fairly high turnover. For others, however, the job is a full-time occupation or the early stage of a hoped for career in the fast food industry. Workers in both groups often work side-by-side in the same store.

Study findings suggest that fast food jobs are not dead-end. They benefit, to a large extent, the great majority of hourly employees. For many, these jobs appear to serve as transitions between periods of schooling or to new jobs. For others, the fast food job represents a "port of entry" into an occupation or career. In fact, it seems that the fast food job helps most those employees with the least opportunity to learn skills necessary in the world of work. And for still other people, the flexibility of these jobs is the major attraction, allowing them to work when and as often as they want.

HOW THE STUDY WAS CONDUCTED

The study first began to take shape in 1978 with discussions among the Institute, Gino's (later purchased by the Marriott Corporation and subsequently dropped from the study), McDonald's and Marriott (Roy Rogers). Other companies joined in the project later on.

A survey questionnaire was designed with the assistance of Dr. Jerald Bachman from the Institute for Social Research at the University of Michigan. The fast food companies gave complete responsibility to the Institute for design of the study and interpretation of the results.

After pilot testing, the survey was administered during the winter of 1982-83 to more than 7,000 hourly employees working at 279 fast food restaurants in 207 cities and towns across America. A total of 4,660 surveys were returned, a 66 percent response rate.

WHO WORKS IN FAST FOOD JOBS?

The study found out a great deal about the people who work in fast food jobs. For example:

- The mean length of employment was 18 months, and 25 percent had worked two years or longer; another 25 percent had been on the job for six months or less;
- Females outnumbered males by two-to-one (66 percent to 34 percent);
- Fully 70 percent of the workers were age 16-20;
- Whites made up 77 percent of the survey respondents; Blacks, 16 percent; Hispanics, 5 percent;
- A total of 59 percent were classified as coming from "lower" or "lower middle" class backgrounds; just 13 percent came from the upper middle or upper classes;
- Over half the respondents' fathers and two-thirds of their mothers had a high school education or less;
- Fully half the respondents had continued their education beyond high school; 36 percent attended or were attending a two- or four-year college; 45 percent said they planned to graduate from a four-year college eventually;
- Among the respondents, 59 percent had "B" grade averages or above in high school;
- Seventy-one percent of all respondents believed work is "more than a way to earn a living," and 67 percent expected work to be a "central part of their lives."

In short, employees in fast food jobs tend to be female, relatively young, racially similar to the national population and living at home with one or more parents. Although they come primarily from lower or lower middle class backgrounds, fast food employees are good students in school and plan to continue their education. Strong believers in the work ethic, fast food employees say they would work even if they didn't have to. They are also relatively stable employees, sticking with their jobs longer than is often assumed.

WHAT KINDS OF SKILLS DO FAST FOOD WORKERS LEARN?

Fast food workers are required to perform a wide variety of tasks, some of which are specific only to the industry. Other skills, however, are clearly transferable to other jobs.

The most obvious skill learned is operation of equipment such as cash registers and food preparation machines. But 70 percent of the respondents said they learned "some" or "a great deal" about training other employees; half learned supervisory skills; and 40 percent learned about inventory control. Only 20 percent said they learned bookkeeping or accounting skills.

Equally important, if not more so, are the "general employability skills" learned by fast food employees. Employability skills are those useful in any line of work. Among the employees surveyed, 90 percent said their fast food job helped them "some" or "a great deal" in learning how to deal with people. Ninety-four percent said they learned how to work with others. A total of 69 percent said they learned more about how a business runs, while 40 percent said they learned something of general business principles.

Fast food jobs also help employees -- especially Blacks and Hispanics and the young -- learn positive work values. Specifically, the fast food job helped:

- 73 percent learn about taking directions;
- 75 percent learn about getting along with coworkers;
- 57 percent learn about being on time;
- 64 percent learn about finishing an assigned task; and
- 59 percent learn about being dependable and coming to work regularly.

HOW DO FAST FOOD EMPLOYEES FEEL ABOUT THEIR JOBS?

In general, fast food employees like their jobs and do not feel work has hurt their grades or their social lives to any great extent. Teachers and counselors seem to agree -- more than 60 percent of each group approved of students working in fast food jobs. More than 70 percent of parents approved.

- A majority of fast food employees say they would like to move up into more responsible positions in the store and in the company. Companies should do more management recruitment from among hourly employees and make every effort to promote from within the ranks, especially Blacks and Hispanics, who in the study indicated the greatest interest in promotions.

- Training strategies should be better thought-out and should utilize a variety of approaches and materials. Companies that rely on district and area managers for training should consider using other sources.

- Despite the number of students working in fast food jobs, links with schools are almost completely absent. To reinforce the development of work-readiness skills and attitudes, schools should integrate fast food job experiences into existing career education programs.

- Schools and fast food companies could work together to create integrated work/study programs that move trainees into management positions.

- School counselors should make students aware of the opportunities and satisfactions of fast food jobs and should make contact with individual employers to refer students to job openings.

Copies of the study report, Fast Food Jobs, are available from the National Institute for Work and Learning, 1302 18th Street, N.W., Suite 501, Washington, D. C. 20036.

ARIZONA UNEMPLOYMENT INSURANCE ACTIVITIES - MAY 1984

	May 1984	April 1984	May 1983	From One Year Ago
Arizona Claimants Served*	27,157	28,149	62,346	-56.4%
Arizona Average Weeks Unemployed**	8.3	8.5	10.8	-23.1%
Arizona Benefits Paid*	$ 8,837,930	$ 8,087,757	$ 20,122,352	-56.1%
Arizona Trust Fund Balance	$212,568,755	$183,522,541	$168,168,986	+26.4%

*All Programs **UI Only

ARE ANNUAL SAVINGS UP TO $767 PER EMPLOYEE POSSIBLE FROM UI TAXES ALONE?

There are a variety of factors that businesses look at when determining where to locate their facilities. Arizona has been fortunate to have had many drawing cards to use in attracting firms to the state, including mild weather, abundant recreational opportunities, a growing skilled labor force and competitive wages, just to name a few.

Unemployment among American workers has reached record levels in the last several years. The recession has been felt by not only the general population but by businesses as well. Firms are responsible for paying unemployment insurance taxes into a trust fund maintained by states in which they do business to pay for the unemployment benefits collected by eligible former employees. Tax rates vary from state to state and can be an important factor for a company to consider when contemplating locations for its facilities.

Arizona's unemployment insurance (UI) tax rate structure is one of the lowest in the United States. Only the first $7,000 of an employee's earnings are taxed. No state has a lower tax base and 28 states have higher tax bases, with the high base of $21,400 in Alaska.

Although Arizona has had a very low tax base, its UI trust fund has consistently maintained a positive balance, even during periods of high unemployment. Other states have not weathered the recessions of recent years as well. Thirty-one states recently had to borrow a total of $13 billion from the federal treasury in order to finance their benefit payments.

The minimum tax rate that is levied on an Arizona business in 1984 is 0.10 percent. Only three states have lower minimum rates and only Washington state has a lower maximum than Arizona's 3.04 percent maximum rate. Washington, however, has a $12,000 tax base so that its employers pay a maximum $360 per employee while Arizona employers pay only a maximum $213 per employee, still the lowest in the nation.

Employers' tax rates are calculated each year based on a formula in Arizona law which requires that only the net required yield is brought in each year. Built into the computation process, also governed by statute, is a system of countercyclical financing to favor employers during deteriorating economic conditions. This year's tax increase to 1.88 percent, up from 1.12 percent, coincides with an improving economy and will help replenish the trust fund from which record payments were made to claimants during the last two years.

Companies should seriously consider the UI tax advantages Arizona has to offer. When compared to the UI tax rate structure and fund stability of other states, locating in Arizona could mean an annual savings of many UI tax dollars per employee. When compared to the maximum cost a company could incur per employee (maximum tax levied by a state X tax base), doing business in Arizona could mean a maximum annual savings of $767 per employee (the difference of Idaho's $980 maximum cost per employee to Arizona's $213 maximum cost).

Lee Connelly

HOW ARIZONA COMPARES TO OTHER STATES IN UNEMPLOYMENT INSURANCE
(TAX RATE - 1983)

	ARIZONA	HIGH/LOW	RANK
Maximum Tax Rate* (% on taxable payroll)	2.90	10.00/2.90	50
Minimum Tax Rate (% on taxable payroll)	0.10	3.00/0.00	39
Average Tax Rate** (% on taxable payroll)	1.12	4.60/0.94	49
Taxable Wage Base	$7,000	$20,200/7,000	50
Maximum Cost per Insured Employee*** (Maximum tax X tax base)	$203.00	$806.40/203.00	50
Average Cost per Insured Employee**** (Average tax X tax base)	$78.40	$479.00/66.00	49
Trust Fund Balance (August 1983)	$179.9 million	$2,315.8 million/ -$2,564.9 million (19 states had negative balances)	8
States with Loans Outstanding	--	$2,564.9 million/-- (24 states had outstanding loan balances)	--

* Rate for 1984 has been set at 3.04 percent which would rank Arizona 49th compared to the 1983 survey.

** Rate for 1984 has been set at 2.30 percent, ranking Arizona 35th if compared to the 1983 survey.

*** Maximum cost for 1984 based on the maximum tax rate of 3.04 percent would total $213.00, still ranking Arizona 50th.

**** Average cost per insured employee for 1984 based on the average rate of 1.88 percent would be $132.00.

THE ARIZONA LABOR FORCE IN JUNE 1984

It has now been 20 months since the unemployment rate reached its peak of 11.2 percent in October 1982. The state's economic improvement since that time has been tremendous, as more than 105,000 people have found work. Our unemployment rate is now the lowest it has been since October 1979, principally the result of strong business activity in the Phoenix and Tucson metropolitan areas. In fact, the unemployment rate of 3.6 percent in Maricopa County for June is equal to the record low recorded in January 1970. The pattern of very strong employment growth that Arizona has experienced throughout 1984 continued in June and is expected to persist throughout the rest of the year.

While the metropolitan areas continue to influence the drop in our statewide unemployment rate, economic conditions are not nearly as strong in the state's rural areas. In the nonmetropolitan counties, unemployment rates range from 7.0 percent in Cochise County to a high of 17.8 percent in Yuma County. While there has been some improvement in the employment situation of the nonmetropolitan counties, as a group their unemployment rate currently stands at 10.8 percent.

By industry, employment growth in June was quite strong. Manufacturing added 1,800 new workers, bringing total employment to a new record of 168,700. All the improvement came in the durable goods sector with increases in fabricated metals and expansions in aerospace and electronics. Most of the increase was in the Phoenix area, with Tucson accounting for the balance.

Of particular note was the addition of 1,300 new staff in construction. High interest rates have not yet taken their expected toll. In fact, construction broke the previous record level of 90,600 that has stood since August 1979. That is good news to the 91,300 who now have a job in the industry, but the threat of high interest rates is keeping prospective home buyers from looking. Although nonresidential construction will cushion employment losses, the recent pace of hiring cannot be expected to continue.

Otherwise, most of the economy experienced seasonal activity. The loss of employment in government was the result of summer vacation time in the school systems. But part of the loss was offset by summer youth programs that added new staff. Meanwhile, trade and some areas of services in the metropolitan areas lost employment as the summer heat diminished tourist activity.

Arizona remains in excellent economic health. Many jobs are being created and unemployment has continued to fall. Manufacturing and construction hit record employment levels in June and the summer tourism season is impacting favorably on the state's northern counties. While many states continue to suffer, Arizona has returned to employment prosperity.

Arizona Labor Force and Employment

June 1984 (in thousands)

	ARIZONA				
				-- Amt Change --	
	Jun.* 1984	May. 1984	Jun. 1983	May. to Jun.	1983 to 1984
TOTAL CIVILIAN LABOR FORCE	1394.5	1404.2	1374.4	-9.7	+20.1
Total Unemployment	74.3	71.2	133.4	+3.1	-59.1
Rate	5.3	5.1	9.7	---	---
Rate (Sea. Adj.)**	5.0	5.3	9.3	---	---
Total Employment	1320.2	1333.0	1241.0	-12.8	+79.2

THE ABOVE LABOR FORCE STATISTICS SHOU

NONAGRICULTURAL WAGE AND SALARY EMPLOYMENT BY PLACE OF WORK

TOTAL WAGE AND SALARY	1124.5	1140.9	1053.1	-16.4	+71.4
Manufacturing	168.7	166.9	155.8	+1.8	+12.9
Durable Goods	133.0	131.2	121.3	+1.8	+11.7
Stone, Clay and Glass	7.1	7.0	6.2	+0.1	+0.9
Primary and Fabricated Metals	15.6	15.2	14.7	+0.4	+0.9
Primary Metals	6.6	6.5	6.6	+0.1	+0.0
Fabricated Metals	9.0	8.7	8.1	+0.3	+0.9
Machinery	66.1	65.5	61.4	+0.6	+4.7
Other Durable Goods	44.2	43.5	39.0	+0.7	+5.2
Aircraft and Missiles	19.7	19.4	17.6	+0.3	+2.1
Lumber and Wood Products (Except Furniture)	7.0	7.0	6.5	+0.0	+0.5
All Other Durable Goods	17.5	17.1	14.9	+0.4	+2.6
Nondurable Goods	35.7	35.7	34.5	+0.0	+1.2
Food and Kindred Products	7.8	7.8	7.9	+0.0	-0.1
Apparel	5.1	5.3	4.9	-0.2	+0.2
Printing and Publishing	12.8	12.8	12.2	+0.0	+0.6
All Other Nondurable Goods	10.0	9.8	9.5	+0.2	+0.5
Mining and Quarrying	13.9	13.9	14.6	+0.0	-0.7
Copper Mining	10.9	10.9	11.6	+0.0	-0.7
Other Mining and Quarrying	3.0	3.0	3.0	+0.0	+0.0
Construction	91.3	90.0	78.5	+1.3	+12.8
Trans., Communications, and Public Utilities	59.0	58.4	56.5	+0.6	+2.5
Transportation	25.1	25.0	23.8	+0.1	+1.3
Communications and Public Utilities	33.9	33.4	32.7	+0.5	+1.2
Trade	269.6	270.6	256.4	-1.0	+13.2
Wholesale Trade	54.1	54.2	51.4	-0.1	+2.7
Retail Trade	215.5	216.4	205.0	-0.9	+10.5
General Merchandise and Apparel	36.5	36.7	35.2	-0.2	+1.3
Food Stores	34.5	34.3	32.7	+0.2	+1.8
Automotive and Service Stations	25.5	25.2	24.5	+0.3	+1.0
Eating and Drinking Places	76.0	76.9	71.4	-0.9	+4.6
Other Retail Trade	43.0	43.3	41.2	-0.3	+1.8
Finance, Insurance, and Real Estate	69.1	68.9	65.9	+0.2	+3.2
Services and Miscellaneous	258.4	257.2	238.2	+1.2	+20.2
Hotels and Other Lodging Places	26.7	27.9	24.3	-1.2	+2.4
Business Services	55.3	54.1	47.2	+1.2	+8.1
Health Services	67.2	66.9	64.5	+0.3	+2.7
Other Services	109.2	108.3	102.2	+0.9	+7.0
Government	194.5	215.0	187.2	-20.5	+7.3
Federal	40.6	40.3	38.7	+0.3	+1.9
State and Local	153.9	174.7	148.5	-20.8	+5.4
School	83.8	107.8	79.8	-24.0	+4.0

* Preliminary

** Normal seasonal variations have been eliminated to reflect underlying economic trends.

NOTE--Prepared in cooperation with the U.S. Department of Labor,Bureau of Labor Statistics.

Arizona Labor Force and Employment

June 1984 (in thousands)

MARICOPA COUNTY					PIMA COUNTY				
Jun.* 1984	May. 1984	Jun. 1983	-- Amt Change -- May. to Jun.	-- Amt Change -- 1983 to 1984	Jun.* 1984	May. 1984	Jun. 1983	-- Amt Change -- May. to Jun.	-- Amt Change -- 1983 to 1984
879.3	887.9	847.8	-8.6	+31.5	257.3	258.8	256.4	-1.5	+0.9
34.1	34.4	63.0	-0.3	-28.9	11.0	11.1	23.8	-0.1	-12.8
3.9	3.9	7.4	---	---	4.3	4.3	9.3	---	---
3.6	4.0	7.1	---	---	4.1	4.5	8.9	---	---
845.2	853.5	784.8	-8.3	+60.4	246.3	247.7	232.6	-1.4	+13.7

NOT BE USED FOR ECONOMIC ASSISTANCE PROGRAMS.

NONAGRICULTURAL WAGE AND SALARY EMPLOYMENT BY PLACE OF WORK

MARICOPA COUNTY					PIMA COUNTY				
734.0	744.4	679.1	-10.4	+54.9	207.9	210.1	196.2	-2.2	+11.7
121.7	120.5	112.2	+1.2	+9.5	29.0	28.4	26.8	+0.6	+2.2
96.9	95.8	88.4	+1.1	+8.5	24.1	23.5	22.0	+0.6	+2.1
4.3	4.3	3.7	+0.0	+0.6					
9.8	9.6	9.5	+0.2	+0.3					
53.0	52.6	48.7	+0.4	+4.3					
29.8	29.3	26.5	+0.5	+3.3					
24.8	24.7	23.8	+0.1	+1.0	4.9	4.9	4.8	+0.0	+0.1
5.2	5.2	5.5	+0.0	-0.3					
3.0	3.0	2.7	+0.0	+0.3					
9.4	9.4	8.9	+0.0	+0.5					
7.2	7.1	6.7	+0.1	+0.5					
0.7	0.7	0.6	+0.0	+0.1	3.8	3.7	3.8	+0.1	+0.0
63.4	62.8	54.5	+0.6	+8.9	18.8	18.2	15.5	+0.6	+3.3
38.2	37.9	36.2	+0.3	+2.0	9.1	8.9	8.6	+0.2	+0.5
16.7	16.6	15.7	+0.1	+1.0	4.1	4.0	3.6	+0.1	+0.5
21.5	21.3	20.5	+0.2	+1.0	5.0	4.9	5.0	+0.1	+0.0
183.8	184.7	173.3	-0.9	+10.5	43.9	43.9	43.1	+0.0	+0.8
43.6	43.3	41.1	+0.3	+2.5	6.3	6.3	6.2	+0.0	+0.1
140.2	141.4	132.2	-1.2	+8.0	37.6	37.6	36.9	+0.0	+0.7
23.6	23.7	22.3	-0.1	+1.3	6.5	6.5	6.6	+0.0	-0.1
22.2	22.1	20.7	+0.1	+1.5	5.5	5.5	5.4	+0.0	+0.1
16.4	16.3	15.6	+0.1	+0.8	4.1	4.0	4.1	+0.1	+0.0
48.1	49.1	45.4	-1.0	+2.7	13.9	14.1	13.3	-0.2	+0.6
29.9	30.2	28.2	-0.3	+1.7	7.6	7.5	7.5	+0.1	+0.1
54.2	54.0	51.5	+0.2	+2.7	9.7	9.6	9.2	+0.1	+0.5
175.4	175.1	159.1	+0.3	+16.3	48.7	48.5	45.9	+0.2	+2.8
14.8	16.3	13.6	-1.5	+1.2	4.3	4.5	3.7	-0.2	+0.6
46.0	45.0	39.0	+1.0	+7.0	7.6	7.5	6.6	+0.1	+1.0
45.4	45.1	43.3	+0.3	+2.1	14.0	13.9	13.7	+0.1	+0.3
69.2	68.7	63.2	+0.5	+6.0	22.8	22.6	21.9	+0.2	+0.9
96.6	108.7	91.7	-12.1	+4.9	44.9	48.9	43.3	-4.0	+1.6

-- Prepared by Labor Market Information, Research and Analysis (CPS-MOD, 1/84)

NONMETROPOLITAN COUNTIES LABOR FORCE AND EMPLOYMENT
JUNE 1984 (Preliminiary)

	Apache	Cochise	Coconino	Gila	Graham	Green-lee	La Paz
TOTAL CIVILIAN LABOR FORCE*.	14,675	28,125	36,150	13,575	7,050	3,850	4,600
Total Unemployment	2,500	2,050	3,375	1,500	600	275	500
Rate	17.0%	7.3%	9.3%	11.0%	8.5%	7.1%	10.9%
Rate (Seas. Adj.)**. . . .	16.3%	7.0%	8.7%	10.9%	8.1%	7.4%	-INA-
Total Employment	12,175	26,075	32,775	12,075	6,450	3,575	4,100

THE ABOVE LABOR FORCE STATISTICS SHOULD NOT BE USED
FOR ECONOMIC ASSISTANCE PROGRAMS

TOTAL WAGE AND SALARY. . . .	12,825	21,250	30,975	9,775	3,975	3,050	2,325
Manufacturing.	700	1,525	2,600	1,375	100	325	100
Mining and Quarrying	50	350	50	1,650	100	1,650	0
Construction	1,525	925	1,125	475	125	50	50
Trans., Comm., & Pub. Util..	1,650	1,350	2,225	250	150	50	50
Trade.	1,050	4,400	7,175	1,725	1,150	350	800
Fin., Insur., & Real Estate.	150	625	600	225	100	25	100
Services and Miscellaneous .	3,225	2,625	7,975	1,550	700	100	650
Government	4,475	9,450	9,225	2,525	1,550	500	575

	Mohave	Navajo	Pinal	Santa Cruz	Yavapai	Yuma
TOTAL CIVILIAN LABOR FORCE*.	20,950	25,125	28,850	8,450	30,100	36,450
Total Unemployment	1,775	3,350	3,250	1,375	2,200	6,500
Rate	8.5%	13.3%	11.3%	16.3%	7.3%	17.8%
Rate (Seas. Adj.)**. . . .	8.1%	13.4%	10.8%	15.4%	7.6%	-INA-
Total Employment	19,175	21,775	25,600	7,075	27,900	29,950

THE ABOVE LABOR FORCE STATISTICS SHOULD NOT BE USED
FOR ECONOMIC ASSISTANCE PROGRAMS

TOTAL WAGE AND SALARY. . . .	14,625	17,075	21,625	7,075	16,700	21,475
Manufacturing.	2,200	1,950	2,550	875	2,075	1,650
Mining and Quarrying	250	1,075	3,875	25	325	50
Construction	900	600	600	225	925	1,500
Trans., Comm., & Pub. Util..	950	1,625	975	550	875	1,000
Trade.	4,300	3,100	3,775	2,775	4,600	6,725
Fin., Insur., & Real Estate.	725	275	725	225	725	750
Services and Miscellaneous .	2,875	4,275	2,100	1,050	3,250	3,900
Government	2,425	4,175	7,025	1,350	3,925	5,900

*Adjusted to the Current Population Survey (CPS) to reflect place of residence.
**Seasonal adjustment not applicable for economic assistance programs.

NOTE--Series for Yuma and La Paz counties start January 1983. Data are not comparable to any past series.

Prepared in conjunction with the U.S. Department of Labor, Bureau of Labor Statistics.

ARIZONA LABOR FORCE AND EMPLOYMENT FOR ECONOMIC ASSISTANCE PROGRAMS

April 1984 (Final)

County	Civilian Labor Force	Employment	Unemployment	Rate
Statewide	1,406,081	1,334,980	71,101	5.1%
Apache	13,969	12,435	1,534	11.0
Cochise	28,204	26,150	2,054	7.3
Coconino	35,169	32,929	2,240	6.4
Gila	13,692	11,903	1,789	13.1
Graham	7,461	6,783	678	9.1
Greenlee	3,836	3,600	236	6.2
La Paz	4,717	4,174	543	11.5
Maricopa	889,177	854,683	34,494	3.9
Mohave	21,519	19,582	1,937	9.0
Navajo	24,033	21,779	2,254	9.4
Pima	259,339	247,862	11,477	4.4
Pinal	30,036	26,764	3,272	10.9
Santa Cruz	8,390	7,425	965	11.5
Yavapai	30,493	27,862	2,631	8.6
Yuma	36,046	31,049	4,997	13.9

Data have been adjusted to the 1972 Standard Industrial Classification (SIC). These figures are the only official BLS labor statistics to be used for revenue sharing purposes. They are not designed to be used as economic indicators. Note: Series for Yuma and La Paz counties start January 1983. Data are not comparable to any past series.

ESTIMATED HOURS AND EARNINGS OF PRODUCTION WORKERS IN SELECTED INDUSTRIES IN ARIZONA

JUNE 1984

INDUSTRY	AVERAGE WEEKLY EARNINGS			AVERAGE WEEKLY HOURS			AVG. HOURLY EARNINGS		
	JUNE* 1984	MAY 1984	JUNE 1983	JUNE* 1984	MAY 1984	JUNE 1983	JUNE* 1984	MAY 1984	JUNE 1983
FOR THE STATE OF ARIZONA*									
Manufacturing	366.71	358.67	374.14	40.7	40.3	40.8	9.01	8.90	9.17
Aircraft & Missiles	INA	INA	465.50	INA	INA	41.6	INA	INA	11.19
Food & Kindred Products	305.73	313.10	340.96	39.5	40.4	39.6	7.74	7.75	8.61
Primary Metals	503.26	480.64	464.36	40.1	39.3	38.6	12.55	12.23	12.03
Machinery	337.42	330.89	355.56	40.8	40.6	41.2	8.27	8.15	8.63
Copper Mining	551.26	550.09	520.74	41.2	41.8	39.6	13.38	13.16	13.15
Construction	430.85	424.05	419.76	37.4	37.1	36.0	11.52	11.43	11.66
Utilities	525.95	525.95	500.76	42.9	42.9	42.8	12.26	12.26	11.70
Retail Trade**	245.73	245.73	210.52	33.8	33.8	33.9	7.27	7.27	6.21
Wholesale Trade	351.50	351.50	338.40	38.5	38.5	40.0	9.13	9.13	8.46

* Preliminary

** Excludes eating and drinking places.

NOTE--These estimates are based on a sample of full and part-time production and related employees whose payroll and hours are reported for the pay period which includes the 12th of the month. Prepared in cooperation with the U.S. Department of Labor, Bureau of Labor Statistics.

--Prepared by Labor Market Information, Research and Analysis (1972 SIC, 1/84)

1984 LEGISLATIVE ACTION - A SUMMARY OF LMI-RELATED BILLS ENACTED BY THE 36TH ARIZONA LEGISLATURE

TAX SUBTRACTIONS

Displaced Homemaker Employment; Tax Subtraction (H.B. 2006) - CHAPTER 210. Provides a deduction from Arizona gross income for employers equal to the first three months of wages paid to a displaced homemaker. The deduction will be available from tax year 1984 through tax year 1987. The Arizona Department of Revenue will provide an affidavit to be completed by the individual certifying that he/she meets the definition of a displaced homemaker as set forth in the act.

Income Tax Breaks; Child Care (S.B. 1163) - CHAPTER 33. Establishes a subtraction from Arizona gross income for the cost of renovating, remodeling, acquiring or constructing a child care facility for the children of employees of the taxpayer. The cost may be amortized over a 24-month period, beginning with the month in which the facility is placed in service.

RIGHT-TO-WORK/LABOR PRACTICES

Right-to-Work Law; Enforcement (H.B. 2308) - VETOED. Would have authorized the Attorney General to "independently" enforce Arizona's right-to-work laws and allowed attorney fees to be awarded to the prevailing party in an action brought pursuant to these laws. The governor vetoed this legislation because he believed it unnecessary in light of the present right-to-work statutes.

Illegal Labor Practices (H.B. 2310) - VETOED. Would have provided that any violation of Title 23, Chapter 8, Articles 1 and 2 by use of force or violence is a class 6 felony and that any other violation of these laws is a class 1 misdemeanor. Also would have prohibited picketing which interferes with the access to any premises or with the free use of public streets, public sidewalks or other public ways. The governor vetoed this legislation because he believed it "outlaws peaceful expression of First Amendment protected speech" which is unconstitutional.

Repeal Little Davis Bacon Act (S.B. 1010) - VETOED. Would have removed and prohibited requirements that public works contracts contain provisions guaranteeing that wages paid by the contractor or subcontractor are not less than the prevailing rate of wages for work of similar nature in the state or political subdivisions where the project is located. In his veto message, the governor stated that he did not believe the state should be in the business of dictating to local governments what provisions should or should not be included in local contracts.

UNEMPLOYMENT INSURANCE

Unemployment Insurance; Various Changes (S.B. 1085) - CHAPTER 155. Makes the following changes to the state's unemployment insurance laws: 1) increases the individual taxable wage limit from $6,000 to $7,000; 2) includes tips, gratuities or service charges as wages if they are collected by the employer or used by the employer to conform to federal or state minimum wage requirements; 3) provides for retroactive payment of benefits denied to educational institution employees unemployed between school terms when not employed by the institution for the second term; 4) prescribes the method of determining unemployment benefit amounts for piecework employees; 5) authorizes the Department of Economic Security (DES) to withold payments to unemployed persons liable for child support; 6) changes certain unemployment benefit eligibility requirements; 7) provides for the automatic continuation of a shared work plan by a succeeding employer if they certify the shared work benefits, provides for automatic coverage of an employee of an employer under a shared work plan upon notice to DES and certification of the employee, and allows for a one-year extension of a shared work plan upon DES approval.

Unemployment Compensation; Employer Contribution Rates (S.B. 1092) - CHAPTER 176. Increases the maximum employer contribution tax rate to 5.40 percent beginning January 1, 1985 to conform with the Tax Equity and Fiscal Responsibility Act of 1982 amendments to the Federal Unemployment Tax Act. Provides a 2.70 percent reduced tax rate for new employers not yet eligible for the computed rate. Implements a schedule of rates for "negative reserve ratio" employers over a three year period and modifies the additional tax rate currently applied to negative-balance employers participating in the Shared Work Program.

EDUCATION

Teachers; Proficiency Examination (H.B. 2156) - CHAPTER 286. Among its provisions, this bill requires the State Board of Education and the Board of Regents to develop a reading, grammar and mathematics proficiency examination which must be passed before admittance to a teacher training program in the college of education of any state university.

Career-Ladder Plan for Teachers (S.B. 1095) - CHAPTER 346. An emergency measure providing financial assistance to selected school districts for the development of a career-ladder plan for teachers. The plan will be based on a multi-level structure of teaching positions in which the advancement to a higher level will require either advanced skills or both advanced skills and additional responsibilities.

Schools; Principals' Institute (S.B. 1226) - CHAPTER 348. Establishes an annual principals' institute to be offered for two weeks during the summer. The first principals' institute will be offered during the summer of 1985 with a focus on instructional leadership skills and teacher evaluation.

Teachers; Part-Time Employment; Tenure (S.B. 1031) - CHAPTER 52. Allows a teacher with continuing status (tenure) to keep this status if employed on a part-time basis for at least 40 percent time; also adds to the statutes a definition of full-time teacher.

OCCUPATIONAL SAFETY

Occupational Safety; Hazard Determinations; Hearings (H.B. 2507) - CHAPTER 234. Provides that a condition or practice which is common within an industry is not deemed to be a recognized hazard unless a standard or regulation has been developed by the state OSHA division or the Industrial Commission concerning the condition or practice.

PAYMENT OF WAGES

Labor; Payment of Wages (H.B. 2519) - CHAPTER 284. Increases the maximum wage claim award for unpaid wages from $1,000 to $2,500. Allows the State Labor Department to act on behalf of an employee in order to obtain a judgment and execution, garnishment, attachment or any other available remedy for collection of unpaid wages established by final determination of the department. Authorizes the department to receive payment of wage claims on behalf of employees and establishes a special fund for the deposit of these wages until they are disbursed to the employees. Increases the penalty for an employer's noncompliance with a department order or court order to pay wages due an employee to three times the unpaid wages.

OCCUPATIONAL LICENSING/REGULATION

Funeral Directors and Embalmers Board; Continuation (S.B. 1080) - CHAPTER 356. Continues the Funeral Directors and Embalmers Board until July 1, 1994. Includes provisions for increasing licensing and registration fees collected by the board and provides for the biennial renewal of certain licenses. New provisions have been added concerning the board's authority to take disciplinary action, issue warning notices and impose probation on licensees or registrants, and deny any license and registration applications.

Bail Bond Agents; Licensure (S.B. 1090) - CHAPTER 192. Requires bail bond agents to pass a written examination and post a $10,000 surety bond prior to licensure. Prescribes professional conduct for bail bond agents.

Board of Barbers; Continuation (H.B. 2445) - CHAPTER 279. Continues the Board of Barber Examiners (now Board of Barbers) until

July 1, 1994. Repeals the existing legislation and replaces it with a significantly revised code regulating professional barbering including the following: strengthens the board's regulatory authority over licensees; provides for biennial rather than annual licensing of barbers; allows cosmetologists to become licensed barbers upon completion of 725 hours of specified studies instead of the standard 1,250 hours of study; grants license reciprocity to applicants from states which grant reciprocity to Arizona graduates provided the applicant has had at least one year of practical experience; eliminates certification of barber's apprentices and grants licensure to all apprentices registered before the effective date of the act.

Board of Cosmetology; Continuation (H.B. 2446) - CHAPTER 280. Continues the Board of Cosmetology until July 1, 1994.' Repeals the existing legislation and replaces it with a significantly revised code regulating professional cosmetology and manicuring including the following: strengthens the board's regulatory authority over licensees; provides for biennial rather than annual licensure; eliminates the licensing of finger wavers; grants license reciprocity to applicants for cosmetology or manicuring licenses from states or countries which grant reciprocity to Arizona graduates, have substantially similar licensing requirements and have practiced cosmetology or manicuring for at least one of the five years immediately preceding the application.

Board of Accountancy (S.B. 1083) - CHAPTER 55. Includes provision to allow Board of Accountancy to take disciplinary action against any holder of an accounting certificate.

Physician's Assistants; Regulation (H.B. 2449) - CHAPTER 102. Included in this bill is a provision to repeal the Joint Board of Medical Examiners and Osteopathic Examiners in Medicine and Surgery and establish a nine-member Board on Regulation of Physician's Assistants. Requires physician's assistant to initially register with the board; to annually renew the certification after completing required continuing education courses; and to perform health care tasks under physician's direction. Requires supervising physician to apply for approval of employment of physician's assistant and to only direct two physician's assistants at the same time and location.

Board of Pharmacy; Continuation (H.B. 2126) - CHAPTER 91. Provides for the continuation of the Board of Pharmacy until 1994. Provides for malpractice claim review and reporting; clarification of the procedures regarding hearings and disciplinary actions; expansion of grounds for disciplinary action; increased fees; a grade certification fee; increased amounts of controlled substances which may be dispensed; and mandates the contents of prescription orders. Also eliminates free second examinations and allows for exemption of continuing education requirements if good cause is shown.

Board of Physical Therapy Examiners (S.B. 1077) - CHAPTER 29. Provides for continuation of the Board of Physical Therapy Examiners until 1994. Specifies malpractice reporting requirements; outlines board membership and elections; prescribes licensing requirements, examination schedules, and fees and revises issuance of temporary and probationary permits to out-of-state licensees and foreign-trained applicants respectively.

Board of Podiatry Examiners (S.B. 1076) - CHAPTER 70. Provides for continuation of the Board of Podiatry Examiners until 1994. Establishes new reporting procedures for insurers in the event of malpractice claims and actions and makes various changes in licensing examination and unprofessional conduct statutes.

Nursing Care Institution Administrators (S.B. 1075) - CHAPTER 345. Provides for continuation of the Board of Nursing Care Institution Administrators until 1994. Includes provision to require the director of the Department of Health Services to report administrator-related problems to the board. Requires board to maintain a complaint log on each administrator which is reviewed prior to license renewal, and to notify an administrator in question of the complainant's name and nature of the complaint. The bill also provides for changes in board membership; fee increases; and establishment of provisional license fee.

Board of Dental Examiners (H.B. 2319) - CHAPTER 99. Among its provisions, this bill requires the Board of Dental Examiners to establish educational requirements for denture technology schools and to evaluate dental hygiene and denture technology schools. It also increases reinstatement fees and adds definitions for dental assistant, dental x-ray laboratory technician recognized school of denture technology and supervised personnel.

Board of Nursing (S.B. 1281) - CHAPTER 245. This bill makes a number of changes in the current Nursing Board laws. Among the more significant, it gives the board authority advisory opinions regarding functions of the nursing profession; provides that an applicant who fails the written exam administered by the board three times must complete additional educational requirements prescribed by the board prior to taking the test again; provides specific requirements for licensure for applicants who graduated from a foreign school of nursing; and increases fees.

Osteopathic Physicians (S.B. 1236) - CHAPTER 310. Included in this bill are provisions to order a summary, suspension of a license and to impose a civil penalty. Provides penalties for failure to renew license; prescribes procedures for license cancellation and suspension; expands the definition of unprofessional conduct; increases the penalty for violations of the chapter and charges penalty and licensing fees.

Board of Medical Examiners (S.B. 1270) - CHAPTER 351. This law makes a number of significant changes including the following: provides for limited licensure (one year) in underserved areas for applicants who have not met all licensure requirements; eliminates the requirement that applicants applying for licensure through endorsement of examination hold an active license in the state in which the written exam was passed; increases the application fees; and clarifies who may use the designation "M.D."

Structural Pest Control Board; Continuation (S.B. 1297) - CHAPTER 312. Continues the Structural Pest Control Board until July 1, 1994. Makes various statutory changes, to become effective January 1, 1985 including the following: 1) allows the board to enter into intergovernmental agreements to facilitate the certification of landscape contractors by the Registrar of Contractors, exempting government employees from these statutes unless the employee applies pesticides to golf courses, cemeteries, schools or school grounds; 2) provides that each branch office of a business must have a certified applicator to supervise other applicators, requires each business to have a "qualifying party" who must satisfy certain stringent requirements as to background and knowledge, and provides that all employees who apply pesticides must be trained by the certified applicator and registered with the board; and 3) requires continuing education for renewal with the board of certified applicators and qualifying parties.

Veterinary Medical Examining Board; Licenses; Qualifications; Fees; Disciplinary Actions (H.B. 2051) - CHAPTER 341 Allows the Veterinary Medical Examining Board to employ personnel as it deems necessary. Prescribes collection of veterinary license fees, payment of renewal fees, and veterinary technician certificate fees. Prescribes disciplinary action options for the board with regard to veterinary premises license holders.

SOURCE: 1984 State Senate Legislative Summary. Prepared by Arizona State Senate research staff under direction of Senate President, Stan Turley.

Construction - Preliminary work has begun on a $20 million residential-commercial development project in south Tempe that will include a major shopping mall. The 180-acre tract to be developed is located at 56th Street and Elliot Road, near the Interstate 10 interchange.

A proposed 29- to 31-story resort hotel connected to a mountaintop restaurant by a tram system has received tentative approval from the Glendale City Council. The hotel and restaurant, expected to open January 1, 1987, are part of a Richardson, Texas, firm's plans for a development at Arrowhead Ranch.

Plans have been announced to build a 250,000-square-foot development in downtown Tucson. The $150 million series of buildings will be the city's largest office complex. Construction is expected to begin next spring and take five years.

Goodyear Tire and Rubber Co. and Westinghouse Communities Inc. are considering joint development of a premier community on 12,000 acres near Litchfield Park. The companies are conducting a feasibility study to develop specific plans for the community. The study is expected to be completed by the end of 1984 with first construction two to three years away. Neither company has provided more specifics about the magnitude or cost of the project.

A $2.7 million Biltmore office of the Valley National Bank will be completed in early 1985. The three-story structure is approximately 12,000 square feet.

Manufacturing - The Navy has decided to seek a second manufacturer for the improved version of its Phoenix air-intercept missile, which had been an exclusive product of the Hughes Aircraft Co. plant at Tucson. Hughes has about 6,500 employees at the Tucson plant, with less than 10 percent of its efforts assigned to the Phoenix missile for the Navy. The company has said it is "continuing uninterrupted production" of the missile and that it doesn't foresee any curtailment of activities at the Tucson plant or disruption of the workforce.

W.L. Gore & Associates has begun construction of its first facility at the Woody Mountain site in Flagstaff. The facility, to be completed the end of March, is the first of four buildings planned for construction. A second phase -- an industrial park -- also is planned to be situated on connecting state land.

Gore is one of the largest Flagstaff employers with more than 700 associates in the area. Medical, electronic, distillation and process development support divisions are presently divided among four owned and two leased facilities. The distillation division is slated for relocation to Florida.

Hospitals - The high turnover rate among nurses at Maricopa Medical Center has declined and stabilized since last year. In July, the hospital had fewer than 30 vacancies among the nearly 500 registered-nurse positions. This contrasts to 95 vacant registered-nurse positions at one time last year when low salaries and the possibility of layoffs prompted the exodus of dozens of nurses from the center.

Communications - Meredith Corp., which owns KPHO-TV in Phoenix, has announced plans to build printing facilities in Arizona worth nearly $100 million. The printing operation will be located in Yuma or Casa Grande and will create 200 new jobs. The first of the facility's two buildings is scheduled for completion by mid-1986.

Construction will begin soon on KDTU-TV, Channel 18, in Tucson. The transmitter site will be located in the Tucson Mountains east of the city. Plans call for the transmitter to be located in 900 square feet of space in a facility which will be constructed underground. Channel 18 is scheduled to go on the air before the end of 1984.

Retail Trade - Ross Stores, an off-price retail chain, plans to open three stores in the Phoenix area, the first in the renovated Tower Plaza. The other locations will be at Poca Fiesta Mall in Mesa and at 43rd Avenue and Peoria. Ross carries branded merchandise at discount prices.

Distribution Center - United Parcel Service plans to build a 450,000-square-foot, 150-truck distribution center in the Price Road Business Park in Tempe. The new center, expected to be completed in 1988, will provide about 150 new full-time jobs and 50 part-time jobs. UPS has not decided whether it will close its 10-truck station at 23rd Street and Priest in Tempe after the new hub is completed.

Food Companies Merge - Armour Frozen Foods Division will merge with Banquet Foods Co. of St. Louis to form the world's largest volume manufacturer and marketer of frozen prepared foods. About 20 employees at the Scottsdale facility have been invited to relocate to Missouri and at least 12 are expected to do so. Armour Frozen Foods Division had been owned by the Greyhound Corp. before it was sold to ConAgra Corp. ConAgra also owns Banquet Foods.

Education - The Tucson Job Corps has been awarded another two-year contract by the U.S. Department of Labor. The contract took effect July 1 and contains an option to renew for three years in one-year increments. The Job Corps offers basic educational and vocational training for qualified resident youth. Vocational courses include plumbing, electrical wiring, apartment building maintenance, welding, automotive repair, electronic assembly and clerical skills.

The American Graduate School of International Management has dedicated its new International Conference Center. The center will house classes and offices for Intercom, the Glendale school's international executive-training arm. Intercom offers custom-designed programs for corporate clients ranging from international finance to cross-cultural communications.

Layoffs - Three Arizona terminals of Lee Way Motor Freight Inc. have closed, leaving 38 workers without jobs. The closings are part of a massive cutback by CL Motor Freight of Columbus, Ohio, which acquired Lee Way in May. Thirty workers were furloughed at the Phoenix terminals and eight at the Tucson and Nogales terminals. Besides the Arizona terminals, the company has closed its Las Vegas, Nevada, operations and has scheduled for closing terminals at Albuquerque, New Mexico, Baltimore, Washington, D.C. and Philadelphia.

Unions - The National Labor Relations Board in Washington has ruled that a union cannot impose any restrictions on a worker's right to resign his or her union membership, even during a strike. The decision reversed a board policy handed down in 1982 that had allowed a union to require a 30-day waiting period before a resignation became effective. The board rejected a union argument that the restriction is justified because it seeks to preserve strike solidarity and protect the rights of employees who choose to continue to strike. The ruling may strengthen a pending case against the Ajo Machinist local, which has levied $5,000 fines against members who defied a strike against Phelps Dodge Corp. and crossed picket lines to work.

Conferences - "Skill Development for Today's Woman Manager," a statewide workshop sponsored by the YWCA, the Arizona Department of Education and the Phoenix Mayor's Commission on the Status of Women, has been scheduled for September 28 at the YWCA National Leadership Development Center, Phoenix. A registration fee of $45 is required by September 20. For additional information, contact the YWCA at (602) 264-3811.

"From Welfare to Work: A Challenge for Women," a conference to increase awareness of the specialized training needs of low income and disadvantaged women and to highlight Arizona programs that provide effective vocational training and support services for women, has been scheduled for September 13-14 at the YWCA National Leadership Development Center, Phoenix. The conference is jointly sponsored by the Arizona Department of Economic Security and the Arizona Department of Education. A registration fee of $25 is required. For additional information, call Jeanne Landdeck at (602) 255-3382.

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Arizona Labor Market NEWSLETTER
Arizona Department of Economic Security

Vol. VIII No. 9
September 1984

1982 MINING EMPLOYEES—WHERE ARE THEY NOW?

It is well known that the copper mining industry has reduced its total employment level in Arizona within the last few years. In fact, copper mining employment dropped from a peak of 22,500 in June of 1981 to less than 12,000 in December of 1983 and appears to be continuing to decline. With copper futures currently trading in the 57-60 cents per pound range, down from over a dollar a pound a few years ago, the outlook is not good. However, it is not well known where the former mining employees have gone and what their current employment situations are. Labor Market Information has conducted some research to help shed some light on what has happened to those employees. This research was done to better understand what these people have done to adjust to a major economic dislocation and to help policy makers better understand the functioning of the labor market. The findings of this work contain both confirmation of widely held beliefs and a number of interesting insights. But in the final analysis, the study is not another collection of statistics. Rather, it should help us to minimize the economic hardship that these mass layoffs have produced.

Unemployment Rate

Seasonally Adjusted
July*

ARIZONA	4.7%
Maricopa Co.	3.4%
Pima Co.	3.8%
UNITED STATES	7.5%

Consumer Price Index

National-June
1967 - Base Year

Wage Earner/Clerical Worker -	306.2
% Chg. Yr. Ago	3.0
All Urban -	310.7
% Chg. Yr. Ago	4.2

Phoenix-2nd Qtr.
1977 - Base Year

All Urban -	180.1
% Chg. Yr. Ago	5.6

Producer Price Index

National-July*
1967 - Base Year

All Commodities-	312.0
% Chg. Yr. Ago	2.9
Finished Goods -	292.6
% Chg. Yr. Ago	2.4

* Preliminary

Unemployment rates tell only part of the story concerning the economic conditions in an area. By definition, to be unemployed a person must be without a job and actively seeking employment. Yet the unemployment rates in many of the rural counties most dependent on copper mining have been going down. This might seem paradoxical to those people familiar with the area and aware that the mines have not rehired. But unemployment rates do not account for discouraged individuals who have given up looking for work in their areas because they know that there are not any jobs available. The rates also do not account for those persons who have found work, but whose new wages are much lower than what they used to receive. Another concern is whether a person has had to relocate in order to find work. The purpose of this research was to help fill in some of the information that the employment and unemployment figures were not designed to capture.

For this study, Unemployment Insurance base period wage files were used to obtain data on all persons who received wages from a mine in the first quarter of 1982 and we followed those same persons to the fourth quarter of 1983 (the most current data available). Since most employers in Arizona are required to report to Unemployment Insurance all of the wages they pay to their employees, the base period wage files are very complete. They do not just contain data on persons who are unemployed. (Those interested in a detailed discussion of the methodology should contact the author.)

The data showed that there were 23,163 employees who received wages from copper mining employers during the first quarter of 1982 (see Figure 1). Of those persons, almost 71 percent received wages from an Arizona employer in the fourth quarter of 1983. The remaining persons did not appear in the files at all during that quarter.

Of the persons who received wages in the last quarter of 1983, the majority (72.4 percent) had the same mining employer as in 1982. Due to economic conditions in the industry, there obviously have been few voluntary changes in employment. About one-fourth received wages in another industry and a small number had changed mines (see Figure 2).

Those who continued to work in the mining industry were much more likely to have maintained or increased their wage levels in 1983 over what they had earned in early 1982. The majority of those working in a different industry in 1983 were paid considerably less than they had received in 1982 (see Table 1).

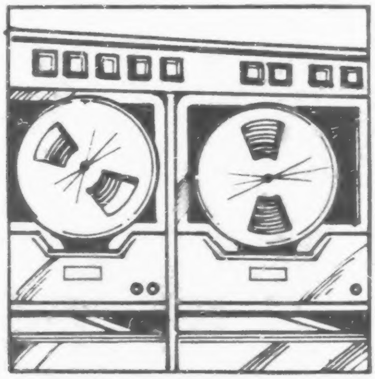
Another question examined was where former mining employees were able to find work. Over 68 percent found work in a county different from the county in which they had previously worked. More of them found work in Maricopa County than in any other county, while more persons changed from Pinal County than from any other county. Although many former miners found work in Pima County, a similar number left the county, leaving a nearly constant number of former miners working in Pima County.

We then tried to determine in which industries the former miners found employment. We found that more of them were working in construction than in any other industry. The next largest groups went to government and business services. The remaining 60 percent were scattered among more than 60 industries at the two-digit Standard Industrial Classification (SIC) level (see Table 2). Although the construction industry tends to be cyclical, the diversity of industries that the former miners have entered is a good sign that massive layoffs will not again affect those who were forced to leave mining.

Of great concern were the 6,738 persons who did not receive any wages during the last quarter of 1983. The lack of wages could be caused by any of the following:

1. Persons ceasing employment with a mine, either voluntarily or involuntarily, and not being able to find a new job.
2. Persons relocating to another state.
3. Persons on strike.
4. Persons leaving the labor force (i.e., retirement, disability, death).

In order to help determine which of these reasons were more likely to have caused the lack of wages, we looked at data from three other sources -- Food Stamp applicants, Unemployment Insurance applicants, and Job Service registrants. About 13 percent of those former miners who had no wages in the fourth quarter of 1983 had applied for Food Stamps in Arizona since October of 1983. This indicates that those persons remained in the state after their mining employment ceased.



From Unemployment Insurance applicant files, we found that over 29 percent of those miners without 1983 wages had filed claims for Unemployment Insurance between October 1982 and January 1984. Only two percent of those claims were filed from out of the state, while over seven percent of the claims were denied due to the applicants being involved in labor disputes.

In addition to the Unemployment Insurance claimants who were required to register with the Job Service, another 839 former miners also had registered for jobs. Therefore, we know that they remained in Arizona and were looking for new jobs. That information plus the Food Stamp and Unemployment Insurance data helped to account for about 55% of the former miners without fourth quarter 1983 wages.

Of the remaining 3,000 former miners, a large number retired from the mines in 1982 and 1983. Several of the mines had special early retirement programs during those difficult times. After contacting a number of these mines, we estimate that the vast majority of those 3,000 who remain probably have retired.

In summary, it appears that those who stayed with a mine maintained or increased their standard of living, while the majority of those no longer in mining are not doing very well financially. Most of the former miners who were able to find some kind of work had to relocate or commute to a different county -- more to Maricopa than to any other county. That means a major life style adjustment for many former miners and their families. For the families who have always lived in the rural counties and have strong social and economic ties to their communities, it must be very difficult, both financially and emotionally, to move to a large urban area where life is very different from what they are used to. For those persons who are unable to move or choose not to leave their homes, the outlook is bleak. New jobs are not being created fast enough in those areas to compensate for the lost mining jobs. One solution would be for new industries to move into those counties. A more likely remedy would be for small businesses to develop from within the communities. Both would provide new jobs and help diversify the employment base to prevent future dependence on any one industry. But economic development is not a "quick fix." If nothing else, it takes time, and a lot of effort.

Barbara Keene

FIGURE 1

EMPLOYMENT STATUS – 4TH QTR. 1983
(TOTAL 1ST QTR. 1982 MINING EMPLOYEES = 23,163)

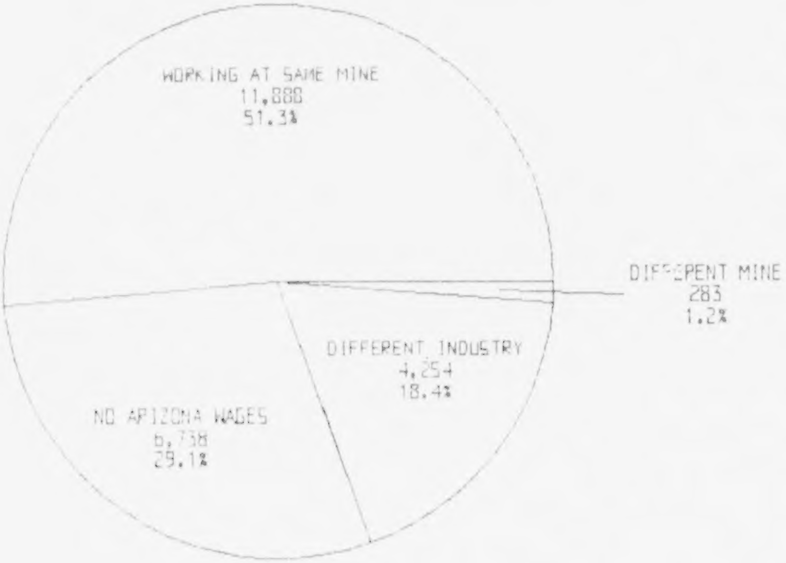
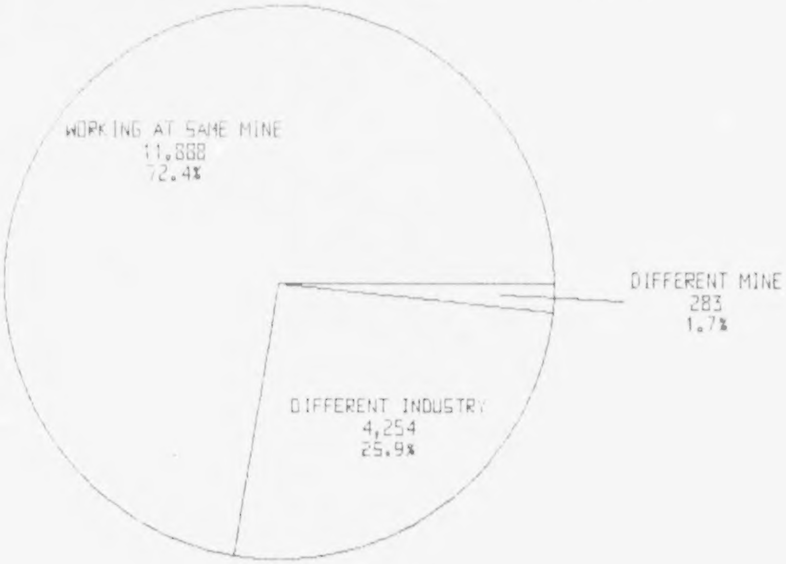


FIGURE 2

EMPLOYMENT LOCATION – 4TH QTR. 1983
(PERSONS WITH 4TH QTR. 1983 WAGES = 16,425)



DEPARTMENT OF ECONOMIC SECURITY
LABOR MARKET INFORMATION

TABLE 1

WAGE CHANGES BETWEEN 1ST QUARTER 1982 AND 4TH QUARTER 1983
(Persons With Wages in 1983 = 16,425)

	PERCENT OF 1982 WAGES RECEIVED IN 1983					
	0-24%	25-49%	50-74%	75-99%	100-149%	150%+
Same Mine	364	377	721	2,987	5,963	1,476
Different Mine	11	7	31	61	132	41
Other Industry	1,069	1,080	808	520	410	367

TABLE 2

1983 INDUSTRIES OF FORMER MINE EMPLOYEES
(Non-mining)

SIC	INDUSTRY	PERCENT
17	Construction - Special Trade Contractors	12.8
91	Executive, Legislative and General Government, except Finance	8.3
73	Business Services	7.0
15	Building Construction - General Contractors and Operative Builders	5.9
16	Construction other than Building Construction - General Contractors	5.5
55	Automotive Dealers and Gasoline Service Stations	4.0
82	Educational Services	3.9
49	Electric, Gas and Sanitary Services	3.6
32	Manufacturing - Stone, Clay, Glass and Concrete Products	2.9
50	Wholesale Trade - Durable Goods	2.9
54	Retail Trade - Food Stores	2.7
65	Real Estate	2.7
58	Retail Trade - Eating and Drinking Places	2.5
80	Health Services	2.5
37	Manufacturing - Transportation Equipment	2.0
--	Other	30.8

COMPARABLE WORTH: ISSUE OF THE '80s

It has been called "the issue of the 80s for women." Others maintain that it is "completely antithetical to the way our economic system works." Both characterizations refer to the concept of comparable worth -- the concept of equal pay for work of comparable value, not to be confused with the earlier concept of "equal pay for equal work."

The concept of comparable worth may have had its origins in the "just price" idea of the Middle Ages, according to June O'Neill, director of policy research on woman and families at the Urban Institute. Canadian officials who enforce their federal comparable worth law date their involvement to a 1950 agreement by the International Labor Organization to promote the idea of "equal pay for work of equal value." Many in the United States, however, trace comparable worth to a court decision and a collective bargaining agreement in the early 1980s.

The Equal Pay Act of 1963 was one of the first major steps. It provided for equal pay "on jobs the performance of which requires equal skill, effort and responsibility, and which are performed under similar working conditions."

Using the Equal Pay Act, the plaintiff has the burden of proving that she is paid less for doing a job that is substantially equal to a job done by a man.

Title VII of the Civil Rights Act of 1984 makes it unlawful for an employer to discriminate on the basis of sex and other factors. It is an unlawful practice under Title VII for an employer to discriminate in hiring, job classification, promotion, compensation, fringe benefits, discharge or any other terms, conditions and privileges of employment. The Bennett Amendment to Title VII brings this part of the Civil Rights Act into line with the Equal Pay Act.

The now classic County of Washington, Oregon v. Gunther case in 1981 came about when Alberta Gunther and three other matrons employed at the Washington County jail sued the county because they claimed they deserved wages equal to male guards at the jail. The matrons were paid $176 to $224 less than male correction officers.

The district court found there were three matrons to every female prisoner, but only one male correction officer to every four male prisoners. The matrons spent anywhere from 10 to 75 percent of their time doing clerical work while male guards spent very little of their time doing this kind of work.

The district court refused to hear evidence of sex discrimination and its decision was overturned by the Ninth Court. This court also touched on the concept of "comparable work," saying that an example of "comparable work" alone would not be sufficient to establish a prima facie case.

The case was appealed to the Supreme Court in 1981. The court addressed the narrow question of whether the Bennett Amendment meant that Title VII's prohibitation against sex-based wage discrimination was limited to claims of equal work.

By a 5 to 4 vote, the court upheld the Ninth Circuit saying that plaintiffs need not prove that they were working at substantially equal jobs in order to sustain a wage discrimination claim under Title VII. Plaintiffs can prevail by proving that their wages were depressed because of intentional sex discrimination even though their jobs are not equal to jobs held by higher paid men. The majority opinion, however, emphasized that its decision was not an endorsement of "the controversial concept of 'comparable worth.'"

SAN JOSE, CALIFORNIA SETTLEMENT

San Jose, California became the site of the first major public sector comparable worth settlement. A report entitled, Affirmitive Action for City Women, was submitted in 1977 to the San Jose city council by a group of women city employees. The report presented traditional affirmitive action issues, but also a new concept: compensating women's classifications on a basis other than by their normal value in the marketplace.

The local of the American Federation of State, County and Municipal Employees (AFSCME) requested the city to study the relationships between men's and women's salaries on the city work force. The city's unwillingness to study this issue and the advent of Proposition 13, which froze county and city wages, prevented the city from dealing with comparable worth in 1978.

By April 1979, 80 women city employees staged a one-day "sick out" to demonstrate their concern to the city administration. The AFSCME local got the city to contract with Hay & Associates, a firm which has been performing job evaluations for more than 40 years, to study salary relationships on nonmanagement positions. The city agreed to this, but on the condition that there was no commitment to do anything other than review the results.

The Hay method is based on three standard evaluation factors: know-how, problem solving, acountability and, in San Jose's case, a special factor of working conditions. All the factors are used to derive an accumulation of points signifying each job's value to the organization. The results for San Jose showed that female-dominated classes, such as librarians and typist clerks, were paid an average of two to 10 percent below the overall trend while male-dominated classes, such as automotive equipment inspector, were paid eight to 15 percent above the average.

Despite disagreement over the causes of wage disparities, formal contract negotiations between the city and the union began in May 1981. In June 1981, however, the Gunther decision came down from the Supreme Court and AFSCME filed a complaint with the Equal Employment Opportunity Commission.

On July 5, AFSCME went on strike bringing roughly 400 of the 2,000 represented employees out of work. Negotiations were complicated by the fact that many of the most underpaid employees were not dues-paying members of the AFSCME local that represented them.

The strike was ended July 14 with a two-year agreement calling for a general salary increase of 7.5 percent the first year and eight percent the following year for all classes. In addition $1.5 million was to be set aside for "special equity adjustments" to female-dominated classes at the lower pay scales.

MINNESOTA LAW

Minnesota has settled its brewing comparable worth situation amicably after a law was passed in 1982 requiring correction of pay disparities involving female-dominated jobs in state government.

The law was the result of work done by the state's Council on the Status of Women, which draws its members from the State House and Senate and citizen representatives. To examine the issue, the council appointed a task force including representatives from both political parties, the AFSCME council representing state employees and citizen groups.

Using a Hay & Associates method, the council's task force found that clerical positions, overwhelmingly filled by women, were paid up to $350 less per month than groundskeeping jobs, mostly filled by men, which were found to be comparable. Similarly, senior groundskeepers were earning more than licensed practical nurses even though LPNs received higher job evaluation points. As a result, the state will pay $22 million in the 1984 and 1985 fiscal years to cover pay equity adjustments. As in the case of San Jose, there were no layoffs or program cuts to cover the back pay awards.

PRIVATE SECTOR ACTIVITY

Action on comparable worth in the private sector generally has lagged behind the public sector. A 1975 suit brought by the International Union of Electrical Workers (IUE) against Westinghouse Electric Corporation is one of the only significant cases thus far.

The suit, which involved the company's lamp manufacturing plant in Trenton, New Jersey, charged that women in "common laborer" work, machine work and inspection positions were not paid as much as men for work which, although different, required equal skill, effort and responsibility. The case went through the appeals process until the Supreme Court in February 1982 remanded the case back to a settlement made in the U.S. Circuit Court of Appeals. In the settlement, 85 workers at the plant received wage hikes and more than 500 former employees were part of a back pay award of $75,000.

Robert E. Williams, a Washington attorney who represents management in labor negotiations, sees the value of job evaluations, but questions whether they are really scientific. "If you go to a pure comparable worth concept, that doesn't leave much room for market values," Williams said. Even if labor and management are involved in evaluating jobs in a company, Williams maintains there is still too much subjectivity to make any evaluation solid means to measure the value of work.

While he supports vigorous enforcement of Title VII, Williams said if comparable worth settlements are instituted in the private sector, the cost will make many companies uncompetitive in domestic and international markets.

STATE OF WASHINGTON CASE

So far, the case that has caused the greatest consternation among comparable worth's critics is American Federation of State, County and Municipal Employees (AFSCME) v. State of Washington. The case developed after a state-commissioned job study completed in 1976 revealed that female-dominated jobs, such as clerical positions, were underpaid as much as $500 per month compared with male-dominated jobs, such as truck drivers. Last November, a federal district judge ruled in favor of the state employees and appointed a master to arrange a back pay settlement to 15,000 mostly women employees which may carry a price tag as high as $500 million.

Critics contend that the market place, not job evaluators, should set wages. "The Washington study differed radically from the market in its assessment throughout the job schedule," June O'Neill wrote in an opinion piece in the January 20, 1984 Wall Street Journal. "A clerical supervisor received a higher rating than a chemist, yet the market rewards chemists with 41 percent higher pay. . . . Truck drivers were ranked at the bottom, receiving fewer points than telephone operators or retail clerks. The market, however, pays truck drivers 30 percent more than telephone operators and the differential is wider for retail clerks."

O'Neill and others fear that comparable worth settlements may cost a certain number of public sector employees their jobs in order to provide money for back pay settlements and wage adjustments to low-paid workers in female-dominated jobs.

Still others, like George C. Smith, a Washington attorney specializing in discrimination litigation, see comparable worth as asking the law to exempt "female employees from the harsh realities of the market and that society must subsidize increased wages in the jobs which females tend to prefer."

Thus far, no comparable worth settlement has been the bank-breaker critics say it could be. In Minnesota, roughly 7,400 state employees are the beneficiaries of a $22 million pay equity settlement which will be paid out over the 1984 and 1985 fiscal years. In this case and in the historic 1981 settlement involving city employees in San Jose, California, there were neither cutbacks in services and programs nor layoffs to cover the cost of the settlements.

While there are doubts about how heavily marketplace factors were considered in San Jose or Washington state, Minnesota, which reached its settlement through a consensus of organized labor, political leaders and private citizen groups, included marketplace wages in its revamped pay plan.

In the meantime, there are at least a dozen comparable worth lawsuits pending which involve state, county and city governments. AFSCME, comparable worth's main proponent across the U.S., has filed charges with the Equal Employment Opportunity Commission (EEOC) and is pushing litigation in Hawaii, Los Angeles, Wisconsin, Reading, Pennsylvannia, Nassau County, New York and Chicago, according to Diana Rock, AFSCME's director of women's activities.

ARIZONA

Earlier this year, AFSCME announced its intentions to unionize the state's universities. Union leaders believe university employees -- as well as many other public employee groups in Arizona -- may be ripe for organizing. Tucson City Councilman, Tom Volgy, who has pushed successfully for a study of pay equity among Tucson city workers, has told a group of University of Arizona workers that if university administrators did not do something to identify and correct the cause of unequal pay scales at the University of Arizona, someone, possibly AFSCME, would do it for them.

Volgy said the city and Pima County have both agreed to conduct studies in comparable worth and the Tucson Unified School District is reportedly considering a comparable worth study of its workers.

FEDERAL RESPONSE

Comparable worth is being resisted on the federal level. The EEOC has more than 200 separate comparable worth complaints pending and has been criticized for letting them sit unanswered for months.

The Reagan administration, as a whole, has hesitated to take a stand on comparable worth. In testimony before the House subcommittee on pay and employee compensation on April 3, Office of Personnel Management Director Donald J. Devine, said the administration is "fully committed to equal pay for equal work" and that adequate legislation (the Equal Pay Act and Title VII of the 1964 Civil Rights Act) to enforce the concept is on the books. Just the same, William Bradford Reynolds, chief of the Department of Justice's civil rights division, has said that the initial decision in the Washington state case is wrong and that the department may intervene against public employees in the case in the near future.

Regardless of what happens in the federal civil service, the future of comparable worth is unclear. No one is quite certain whether the Washington state case will go to the Supreme Court and, if it does, whether the concept will radically change the American marketplace. In the end, comparable worth may be a concept which gradually changes our understanding of the value of work and the meaning of fair compensation.

SOURCES: National information excerpted, with permission, from the three-part series, "Comparable Worth: Issue of the '80s," appearing in the Public Administration Times (April 1, 1984; April 15, 1984; and May 1, 1984). Arizona information is from the Arizona Daily Star (May 2, 1984).

ARIZONA UNEMPLOYMENT INSURANCE ACTIVITIES - JUNE 1984

	June 1984	May 1984	June 1983	% Change From One Year Ago
Arizona Claimants Served*	30,652	27,157	61,051	-49.8%
Arizona Average Weeks Unemployed**	8.7	8.3	INA	INA
Arizona Benefits Paid*	$ 9,449,184	$ 8,837,930	$ 19,150,037	-50.7%
Arizona Trust Fund Balance	$206,595,202	$212,568,755	$175,182,586	+17.9%

*All Programs **UI Only

Arizona Labor Force and Employment

July 1984 (in thousands)

	ARIZONA			-- Amt Change --	
	Jul.* 1984	Jun. 1984	Jul. 1983	Jun. to Jul.	1983 to 1984
TOTAL CIVILIAN LABOR FORCE	1375.8	1393.1	1363.3	-17.3	+12.5
Total Unemployment	68.8	73.0	132.6	-4.2	-63.8
Rate	5.0	5.2	9.7	---	---
Rate (Sea. Adj.)**	4.7	4.9	9.3	---	---
Total Employment	1307.0	1320.1	1230.7	-13.1	+76.3

THE ABOVE LABOR FORCE STATISTICS SHOULD NOT B

NONAGRICULTURAL WAGE AND SALARY EMPLOYMENT BY PLACE OF WORK

TOTAL WAGE AND SALARY	1109.3	1124.7	1044.0	-15.4	+65.3
Manufacturing	169.6	168.8	157.3	+0.8	+12.3
Durable Goods	133.8	133.2	122.7	+0.6	+11.1
Stone, Clay and Glass	6.9	7.0	6.4	-0.1	+0.5
Primary and Fabricated Metals	15.6	15.5	14.6	+0.1	+1.0
Primary Metals	6.6	6.5	6.5	+0.1	+0.1
Fabricated Metals	9.0	9.0	8.1	+0.0	+0.9
Machinery	66.8	66.4	62.0	+0.4	+4.8
Other Durable Goods	44.5	44.3	39.7	+0.2	+4.8
Aircraft and Missiles	20.1	19.8	17.7	+0.3	+2.4
Lumber and Wood Products (Except Furniture)	6.8	7.0	6.9	-0.2	-0.1
All Other Durable Goods	17.6	17.5	15.1	+0.1	+2.5
Nondurable Goods	35.8	35.6	34.6	+0.2	+1.2
Food and Kindred Products	7.7	7.7	7.9	+0.0	-0.2
Apparel	5.0	5.1	4.9	-0.1	+0.1
Printing and Publishing	12.8	12.8	12.2	+0.0	+0.6
All Other Nondurable Goods	10.3	10.0	9.6	+0.3	+0.7
Mining and Quarrying	13.9	13.9	13.5	+0.0	+0.4
Copper Mining	10.9	10.9	10.6	+0.0	+0.3
Other Mining and Quarrying	3.0	3.0	2.9	+0.0	+0.1
Construction	91.1	91.5	80.0	-0.4	+11.1
Trans., Communications, and Public Utilities	59.4	59.0	56.7	+0.4	+2.7
Transportation	25.4	25.2	23.8	+0.2	+1.6
Communications and Public Utilities	34.0	33.8	32.9	+0.2	+1.1
Trade	268.6	269.6	253.4	-1.0	+15.2
Wholesale Trade	54.2	54.2	51.0	+0.0	+3.2
Retail Trade	214.4	215.4	202.4	-1.0	+12.0
General Merchandise and Apparel	37.1	36.7	35.0	+0.4	+2.1
Food Stores	34.5	34.5	32.5	+0.0	+2.0
Automotive and Service Stations	25.7	25.5	24.6	+0.2	+1.1
Eating and Drinking Places	74.4	75.6	69.6	-1.2	+4.8
Other Retail Trade	42.7	43.1	40.7	-0.4	+2.0
Finance, Insurance, and Real Estate	69.3	69.2	66.3	+0.1	+3.0
Services and Miscellaneous	256.1	258.7	238.1	-2.6	+18.0
Hotels and Other Lodging Places	26.0	26.6	23.3	-0.6	+2.7
Business Services	53.9	55.4	46.8	-1.5	+7.1
Health Services	67.4	67.1	64.3	+0.3	+3.1
Other Services	108.8	109.6	103.7	-0.8	+5.1
Government	181.3	194.0	178.7	-12.7	+2.6
Federal	39.2	39.7	38.8	-0.5	+0.4
State and Local	142.1	154.3	139.9	-12.2	+2.2
School	70.3	84.0	70.4	-13.7	-0.1

* Preliminary

** Normal seasonal variations have been eliminated to reflect underlying economic trends.

NOTE--Prepared in cooperation with the U.S. Department of Labor,Bureau of Labor Statistics.

Arizona Labor Force and Employment

July 1984 (in thousands)

MARICOPA COUNTY Jul.* 1984	Jun. 1984	Jul. 1983	Amt Change Jun. to Jul.	Amt Change 1983 to 1984	PIMA COUNTY Jul.* 1984	Jun. 1984	Jul. 1983	Amt Change Jun. to Jul.	Amt Change 1983 to 1984
871.9	880.1	842.6	-8.2	+29.3	251.6	257.3	249.7	-5.7	+1.9
31.3	34.3	61.3	-3.0	-30.0	9.9	11.0	22.6	-1.1	-12.7
3.6	3.9	7.3	---	---	3.9	4.3	9.1	---	---
3.4	3.7	7.0	---	---	3.8	4.1	8.7	---	---
840.6	845.8	781.3	-5.2	+59.3	241.7	246.3	227.1	-4.6	+14.6

USED FOR ECONOMIC ASSISTANCE PROGRAMS.

NONAGRICULTURAL WAGE AND SALARY EMPLOYMENT BY PLACE OF WORK

MARICOPA COUNTY Jul.* 1984	Jun. 1984	Jul. 1983	Amt Change Jun. to Jul.	Amt Change 1983 to 1984	PIMA COUNTY Jul.* 1984	Jun. 1984	Jul. 1983	Amt Change Jun. to Jul.	Amt Change 1983 to 1984
727.1	734.6	676.6	-7.5	+50.5	202.4	207.8	190.6	-5.4	+11.8
122.5	121.8	113.9	+0.7	+8.6	29.1	28.9	26.6	+0.2	+2.5
97.6	97.0	89.7	+0.6	+7.9	24.3	24.1	21.9	+0.2	+2.4
4.2	4.2	4.0	+0.0	+0.2					
9.9	9.8	9.6	+0.1	+0.3					
53.5	53.2	49.3	+0.3	+4.2					
30.0	29.8	26.8	+0.2	+3.2					
24.9	24.8	24.2	+0.1	+0.7	4.8	4.8	4.7	+0.0	+0.1
5.1	5.2	5.5	-0.1	-0.4					
2.9	3.0	2.8	-0.1	+0.1					
9.4	9.4	9.0	+0.0	+0.4					
7.5	7.2	6.9	+0.3	+0.6					
0.7	0.7	0.6	+0.0	+0.1	3.8	3.8	3.4	+0.0	+0.4
63.1	63.6	55.3	-0.5	+7.8	18.9	18.8	15.9	+0.1	+3.0
38.4	38.2	36.3	+0.2	+2.1	9.2	9.2	8.7	+0.0	+0.5
16.8	16.7	15.7	+0.1	+1.1	4.2	4.2	3.7	+0.0	+0.5
21.6	21.5	20.6	+0.1	+1.0	5.0	5.0	5.0	+0.0	+0.0
183.3	183.8	170.7	-0.5	+12.6	43.5	43.9	42.7	-0.4	+0.8
43.7	43.5	40.8	+0.2	+2.9	6.4	6.4	6.3	+0.0	+0.1
139.6	140.3	129.9	-0.7	+9.7	37.1	37.5	36.4	-0.4	+0.7
24.0	23.7	22.1	+0.3	+1.9	6.5	6.5	6.5	+0.0	+0.0
22.4	22.2	20.7	+0.2	+1.7	5.4	5.5	5.4	-0.1	+0.0
16.6	16.5	15.7	+0.1	+0.9	4.1	4.1	4.1	+0.0	+0.0
47.0	48.0	43.6	-1.0	+3.4	13.6	13.8	13.0	-0.2	+0.6
29.6	29.9	27.8	-0.3	+1.8	7.5	7.6	7.4	-0.1	+0.1
54.3	54.2	51.8	+0.1	+2.5	9.7	9.7	9.3	+0.0	+0.4
172.8	175.6	158.5	-2.8	+14.3	48.8	48.7	45.4	+0.1	+3.4
14.1	14.6	12.6	-0.5	+1.5	4.2	4.3	3.5	-0.1	+0.7
44.9	46.2	38.7	-1.3	+6.2	7.4	7.5	6.5	-0.1	+0.9
45.6	45.4	43.2	+0.2	+2.4	13.9	13.9	13.6	+0.0	+0.3
68.2	69.4	64.0	-1.2	+4.2	23.3	23.0	21.8	+0.3	+1.5
92.0	96.7	89.5	-4.7	+2.5	39.4	44.8	38.6	-5.4	+0.8

-- Prepared by Labor Market Information, Research and Analysis (CPS-MOD, 1/84)

NONMETROPOLITAN COUNTIES LABOR FORCE AND EMPLOYMENT

July 1984 (Preliminary)

	Apache	Cochise	Coconino	Gila	Graham	Green-lee	La Paz
TOTAL CIVILIAN LABOR FORCE*	14,100	27,575	35,475	13,225	6,925	3,775	4,525
Total Unemployment	2,500	1,875	3,175	1,300	575	250	450
Rate	17.7%	6.8%	8.9%	9.8%	8.3%	6.6%	9.9%
Rate (Seas. Adj.)**	16.0%	6.5%	8.2%	9.8%	7.6%	7.1%	-INA-
Total Employment	11,600	25,700	32,300	11,925	6,350	3,525	4,075

THE ABOVE LABOR FORCE STATISTICS SHOULD NOT BE USED
FOR ECONOMIC ASSISTANCE PROGRAMS

	Apache	Cochise	Coconino	Gila	Graham	Green-lee	La Paz
TOTAL WAGE AND SALARY	12,350	20,900	30,450	9,675	3,950	3,000	2,400
Manufacturing	700	1,525	2,550	1,375	125	325	100
Mining and Quarrying	50	350	50	1,650	100	1,650	0
Construction	1,575	925	1,125	500	125	50	50
Trans., Comm., & Pub. Util.	1,650	1,400	2,250	275	150	50	50
Trade	1,075	4,375	7,225	1,750	1,150	325	800
Fin., Insur., & Real Estate	175	625	600	225	100	25	100
Services and Miscellaneous	3,200	2,600	8,050	1,575	725	100	750
Government	3,925	9,100	8,600	2,325	1,475	475	550

	Mohave	Navajo	Pinal	Santa Cruz	Yavapai	Yuma
TOTAL CIVILIAN LABOR FORCE*	20,925	24,200	28,200	8,400	29,700	35,225
Total Unemployment	1,525	3,350	2,900	1,375	2,025	6,275
Rate	7.3%	13.8%	10.3%	16.4%	6.8%	17.8%
Rate (Seas. Adj.)**	7.2%	12.9%	9.6%	14.2%	7.3%	-INA-
Total Employment	19,400	20,850	25,300	7,025	27,675	28,950

THE ABOVE LABOR FORCE STATISTICS SHOULD NOT BE USED
FOR ECONOMIC ASSISTANCE PROGRAMS

	Mohave	Navajo	Pinal	Santa Cruz	Yavapai	Yuma
TOTAL WAGE AND SALARY	14,750	16,350	21,450	7,025	16,475	21,000
Manufacturing	2,125	1,925	2,600	875	2,075	1,550
Mining and Quarrying	250	1,075	3,875	25	325	50
Construction	925	600	600	225	950	1,525
Trans., Comm., & Pub. Util.	950	1,625	1,000	550	875	1,000
Trade	4,450	3,125	3,725	2,775	4,575	6,450
Fin., Insur., & Real Estate	725	275	725	225	725	750
Services and Miscellaneous	2,925	4,250	2,100	1,050	3,275	3,900
Government	2,400	3,475	6,825	1,300	3,675	5,775

*Adjusted to the Current Population Survey (CPS) to reflect place of residence.
**Seasonal adjustment not applicable for economic assistance programs.

NOTE--Series for Yuma and La Paz counties start January 1983. Data are not comparable to any past series.

Prepared in conjunction with the U.S. Department of Labor, Bureau of Labor Statistics.

ARIZONA LABOR FORCE AND EMPLOYMENT FOR ECONOMIC ASSISTANCE PROGRAMS

May 1984 (Final)

County	Civilian Labor Force	Employment	Unemployment	Rate
Statewide	1,404,953	1,333,007	71,946	5.1%
Apache	14,131	12,681	1,450	10.3
Cochise	28,305	26,230	2,075	7.3
Coconino	34,575	32,270	2,305	6.7
Gila	13,980	12,347	1,633	11.7
Graham	7,372	6,736	636	8.6
Greenlee	3,849	3,581	268	7.0
La Paz	4,626	4,075	551	11.9
Maricopa	888,304	853,496	34,808	3.9
Mohave	21,373	19,585	1,788	8.4
Navajo	24,140	22,048	2,092	8.7
Pima	259,006	247,684	11,322	4.4
Pinal	29,871	26,668	3,203	10.7
Santa Cruz	8,242	7,248	994	12.1
Yavapai	30,211	27,806	2,405	8.0
Yuma	36,968	30,552	6,416	17.4

These figures are the only official BLS labor statistics to be used for revenue sharing purposes. They are not designed to be used as economic indicators. Note: Series for Yuma and La Paz counties start January 1983. Data are not comparable to any past series.

ESTIMATED HOURS AND EARNINGS OF PRODUCTION WORKERS IN SELECTED INDUSTRIES IN ARIZONA

July 1984

INDUSTRY	AVERAGE WEEKLY EARNINGS			AVERAGE WEEKLY HOURS			AVG. HOURLY EARNINGS		
	JULY* 1984	JUNE 1984	JULY 1983	JULY* 1984	JUNE 1984	JULY 1983	JULY* 1984	JUNE 1984	JULY 1983
	----	----	----	----	----	----	----	----	----
FOR THE STATE OF ARIZONA*									
Manufacturing	387.45	364.00	373.41	41.0	40.4	40.5	9.45	9.01	9.22
Aircraft & Missiles	INA	INA	465.34	INA	INA	41.4	INA	INA	11.24
Food & Kindred Products	303.28	299.12	365.15	39.8	39.1	41.4	7.62	7.65	8.82
Primary Metals	501.39	510.47	429.00	40.5	41.2	35.9	12.38	12.39	11.95
Machinery	336.91	332.03	363.21	40.3	40.1	41.7	8.36	8.28	8.71
Copper Mining	549.84	551.26	521.26	40.4	41.2	37.8	13.61	13.38	13.79
Construction	437.10	433.84	421.26	36.7	37.4	35.7	11.91	11.60	11.80
Utilities	522.40	522.40	512.24	42.3	42.3	43.3	12.35	12.35	11.83
Retail Trade**	225.81	225.81	206.86	35.9	35.9	33.8	6.29	6.29	6.12
Wholesale Trade	364.19	355.94	353.12	39.5	38.9	39.9	9.22	9.15	8.85

* Preliminary

** Excludes eating and drinking places.

NOTE--These estimates are based on a sample of full and part-time production and related employees whose payroll and hours are reported for the pay period which includes the 12th of the month. Prepared in cooperation with the U.S. Department of Labor, Bureau of Labor Statistics.

--Prepared by Labor Market Information, Research and Analysis (1972 SIC, 1/84)

THE ARIZONA LABOR FORCE IN JULY 1984

The employment situation continued its tremendous improvement in July. Except for three rural counties that saw increases in their unemployment rates, the overall unemployment trend is downward. July's statewide rate of 4.7 percent is the lowest since May 1979 when the rate was 4.6 percent. While we are still some distance above the record low of 4.3 percent recorded in January and February of 1970, a few more months of the type we have seen recently will put us within striking distance of what once seemed an impossible target.

As has been the case throughout this recovery, the metropolitan areas of Phoenix and Tucson continue to lead the recovery. Maricopa County broke its previous record low unemployment rate of 3.6 percent as the rate fell to 3.4 percent in July. Meanwhile, Pima County's rate of 3.8 percent is at its lowest level since July 1973 when the unemployment rate had fallen to 3.5 percent.

Because some employers normally increase employment in the summer season and others normally reduce employment, there were some ups and downs in July. On the positive side, manufacturing experienced its 12th consecutive month of increasing employment. Lead by electronics and aerospace firms, another 800 people found work. Also encouraging was the magnitude of the decline in retail trade employment. Usually the summer months contain larger drops, particularly in the eating and drinking places category. But the small decline in Maricopa County is a further indication of our economic strength.

Declining employment was recorded in the construction and services industries. The drop of 400 people in construction is the first such occurrence since January. While it is too soon to declare that the peak of employment has been reached, high interest rates and a shift to nonresidential construction will slow the industry.

In services, the loss of employment was across most sectors. The loss of 600 in hotels and motels was expected because all of it occurred in the metropolitan areas. But of particular concern were the losses in business and miscellaneous services. In business services, temporary help agencies have fueled the rapid advance in 1984. But in July, they were the source of the decline. And in miscellaneous services, the drop in employment is attributed to the shrinking involvement of nonprofit organizations in summer youth employment programs. Here, too, the loss must be put in perspective. First, the strong economy may have encouraged employers to reduce their dependence on temporary help in favor of hiring permanent employees. And the decline in nonprofit organizations may also indicate that youth were able to find jobs in other areas. Clearly, the rapid growth that services has recently recorded could not be sustained indefinitely.

Summer's doldrums make interpretation of economic activity difficult. But overall, Arizona's economy was strong in July. Usual seasonal declines took place in many industries, government in particular, but some of the declines were less than normal. Manufacturing was strong in the metropolitan counties while summer tourism continued at expected levels in the state's northern counties. But the dichotomy between metropolitan and rural areas continues to grow. Even industries expected to be strong such as lumbering are not performing well. Almost all of the net job creation continues to happen in the Phoenix and Tucson areas.

LABOR TURNOVER: A VITAL PIECE OF THE PUZZLE

In 1983, the U.S. Department of Labor, Bureau of Labor Statistics (BLS) altered its method for projecting job openings by occupation. In the past, the Bureau's estimates included openings that resulted from growth and replacement needs caused by death or retirement, but excluded openings created by labor turnover. Now, the Bureau collects data and provides projections on openings that occur when people change occupations or leave the labor force temporarily -- that is, labor turnover. Projections are made by BLS on a nationwide basis.

The Arizona Department of Economic Security, Research Administration, is also in the process of collecting and compiling labor turnover information which can eventually be incorporated into its Occupational Employment Statistics (OES) program. At the present time, however, labor turnover is not included in OES openings projections. This information will enable planners and employers to analyze labor turnover specific to any one industry as well as to make turnover comparisons within occupations across all industries. Job seekers will also be provided with a more accurate picture of career opportunities and occupational trends throughout Arizona.

NATIONAL TURNOVER DATA

The new data collected by BLS reveal that several times more jobs become available through labor turnover than through growth. Nationally, approximately 23.2 million openings annually are projected for the 1980s. Of these, according to Daniel E. Hecker, a BLS labor economist, "21.5 million (93 percent) would be due to replacement needs because of people transferring to other occupations and leaving the labor force for various reasons including school, household responsibilities and retirement; only about 1.7 million annual openings (7 percent), on average, would result from growth."*

Hecker points out that the number of openings in any occupation depends primarily on the occupation's size, the proportion of workers who leave the occupation and the occupation's growth rate. In general, fast growing and large occupations with high turnover have the largest number of openings.

Table 1, reprinted from Heckler's article, shows the projected growth for occupations by average annual openings for 1980-90. Of the 10 occupations with the most projected openings, most do not generally require a college degree for entry. Individuals entering these occupations tend to be young and many work part-time. These occupations are also predominantly held by women. A large proportion of these workers eventually transfer to other occupations or leave the labor force to attend school or assume full-time household responsibilities.

Of those occupations with the fewest number of projected openings, most require substantial amounts of training and/or education. Individuals entering these occupations tend to be older than average, are predominately men and generally work full-time. People occupying these positions tend to stay in them for long periods of time, often until retirement.

W. Kip Viscusi, using a sample of 5,000 individuals from the 1976 University of Michigan Panel Study of Income Dynamics, found that the overall quit rate of women was approximately twice that of men.** However, Haber, Lamas and Green contend that, "Were women to have the same types of jobs, for example, jobs in which the mean wage and occupational distribution were the same as for men, the observed differences in quit rates would be eliminated."***

These findings suggest that a major factor influencing turnover among men and women is the ratio of their wage relative to that paid to a typical male worker. According to Haber, et al., "When the wage is less than this amount, men are likely to seek better job opportunities with employers other than their current one. In contrast, women, who because of family responsibilities often work close to home, may be reluctant to give up a low paying job because the liklihood of finding a better-paying one, which is also close to home, is small."

ARIZONA TURNOVER DATA

The Arizona Industrial Turnover Matrix System (AITMS), currently being developed by the Research Administration of the Arizona Department of Economic Security, is designed to generate detailed employment information not previously available at the state and substate levels. Data pertaining to the movement of workers from industry-to-industry and from county-to-county are currently under analysis. Eventually, data specific to a variety of occupational categories will be included.

AITMS utilizes two independent data sources as input. They are 1) the Unemployment Insurance (UI) employer name and address file, and 2) the UI base period wage file. The two input files are generated on a quarterly basis. Therefore, turnover transactions can be analyzed from quarter to quarter over a period of many years.

Two types of matrices are generated for analyzing labor turnover in Arizona. They are:

- A detailed matrix of county-to-county movements of job changes, and
- Two matrices (detail and summary) of industry-to-industry movements of job changers.

The matrices are constructed from records of individual job changers. At the present time, the following data are included on each job changer's record:

- Standard Industrial Classification (SIC) code of the industry of separation,
- SIC code of the industry of accession,
- County code of the county of separation, and
- County code of the county of accession.

Data pertaining to all individuals for which this information can be collected (i.e., Arizona wage and salary labor force), are tallied to each of the three matrices.

A separation transaction is defined as one in which the employee received wages from one employer during the previous quarter, and received no wages from the same employer during the current quarter. An accession transaction is defined as one in which the employee received wages from one employer during the current quarter, but did not receive wages from the same employer during the previous quarter.

At the present time, only industry-wide turnover information is being tabulated within AITMS. Eventually, however, occupational turnover information will be included in AITMS and further utilized in the OES program. This will enable the Research Administration to provide more accurate labor market information to both employers and job seekers as well as to provide more in-depth analysis of labor markets to economic researchers and planners.

Guy R. Wilson

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* "A Fresh Look at Job Openings," Occupational Outlook Quarterly, Spring 1983 (27-29).

** Viscusi, W. Kip., "Sex Differences in Worker Quitting," The Review of Economics and Statistics, August 1980 (388-398).

*** Haber, Sheldon E., Enrique J. Lamas and Gordon Green, "A New Method for Estimating Job Separations by Sex and Race," Monthly Labor Review, June 1983 (20-26).

PROJECTED GROWTH FOR OCCUPATIONS BY AVERAGE ANNUAL OPENINGS, 1980-90

OCCUPATION	PROJECTED OPENINGS (thousands)	PROJECTED GROWTH	EMPLOYMENT 1980 (thousands)
Retail Trade Sales Workers	1,199	as fast as average	3,347
Waiters and Waitresses	788	as fast as average	1,711
Cashiers	648	faster than average	1,592
Secretaries	575	faster than average	2,500
Cooks and Chefs	399	as fast as average	1,122
Bookkeepers and Accounting Clerks	373	as fast as average	1,715
Assemblers	364	as fast as average	1,670
Typists	299	as fast as average	1,067
Kindergarten and Elementary School Teachers	217	as fast as average	1,625
Carpenters	180	as fast as average	970
Registered Nurses	179	faster than average	1,104
Engineering and Science Technicians	168	faster than average	885
Machine Tool Operators	155	as fast as average	1,020
Automobile Mechanics	147	as fast as average	845
Bank Tellers	125	faster than average	480
Engineers	120	faster than average	1,218
Licensed Practical Nurses	115	faster than average	550
Secondary School Teachers	107	decline	1,237
Welders and Flamecutters	106	as fast as average	573
Accountants and Auditors	104	faster than average	897
Real Estate Agents and Brokers	104	faster than average	582
Cosmetologists	77	as fast as average	514
Manufacturers' Sales Workers	71	as fast as average	437
Social Workers	69	as fast as average	345
Computer Operators	67	much faster than average	233
Electricians	63	as fast as average	560
Drafters	55	faster than average	322
Bank Officers	55	faster than average	406
Plumbers and Pipefitters	52	as fast as average	407
Insurance Agents and Brokers	46	as fast as average	327
Dental Assistants	44	faster than average	140
All-round Machinists	43	as fast as average	303
Brick Layers and Stonemasons	38	faster than average	163
Programmers	36	faster than average	228
Lawyers	34	faster than average	425
Air-conditioning, Heating and Refrigeration Mechanics	33	as fast as average	179
Systems Analysts	28	much faster than average	205
Buyers	26	as fast as average	149
Printing Press Operators and Assistants	26	slower than average	178
Automobile Body Repairers	25	as fast as average	153
Librarians	21	little change	145
Compositors and Typesetters	20	decline	128
Purchasing Agents	20	as fast as average	172
Computer Service Technicians	19	much faster than average	83
Television and Radio Service Technicians	18	faster than average	83
Physicians	17	faster than average	405
Radiologic Technologists	16	faster than average	106
Sheet-metal Workers	17	as fast as average	108
Reporters and Correspondents	12	as fast as average	57
Business Machine Repairers	12	much faster than average	55
Psychologists	12	as fast as average	105
Architects	6	faster than average	80
Dentists	5	as fast as average	126
Dental Laboratory Technicians	4	faster than average	53
Barbers	4	slower than average	112

NEW DEVELOPMENTS

Construction - Escon Builders Inc. has begun construction on a Tucson shopping mall that will be used exclusively by factory outlet stores. Partial funding for the $7.5 million mall came from the City of South Tucson under a Urban Development Action Grant, the first UDAG project ever funded by South Tucson. The 150,000-square-foot facility can accommodate up to 35 factory outlet stores, and is expected to provide employment for about 360 employees. Completion is expected early next year.

Construction has begun in Scottsdale on a $19 million high-technology industrial park, the first master-planned high-technology business facility in Scottsdale. Already scheduled to move into the facility when it is completed is Kroy, Inc., a Scottsdale-based firm that will relocate its national new-product research and development center there.

Hotels - Quality Inns International has begun construction on a new Western regional corporate headquarters in northeast Phoenix, which will also be the international headquarters for the lodging chain's SUNBURST Reservation System. The $4 million center, scheduled for completion by March 1, 1985, will create 250 to 300 new jobs for the Phoenix area.

Manufacturing - Hughes Helicopters has announced a major expansion of its Mesa plant that will boost its Valley work force to 7,000 by 1990. Current employment is 1,400. The company will move almost all of its operations -- corporate headquarters, engineering, production of its civil helicopters and science labs -- from Culver City, California, where the 50-year old firm has been based since 1942.

Gates Learjet Corp. will hire more than 180 workers in Tucson over the next several months as the company shifts preliminary assembly on its 20 and 30 series corporate jets from Wichita, Kansas to Tucson. Until now, the work on the 20 and 30 series has been split between Tucson and Wichita. The new Tucson jobs will pay an average of $10 an hour, adding $4 million to the company's annual Tucson payroll. Gates plans to notify appropriate candidates from among more than 1,500 Tucson workers on furlough since 1982. Gradual outside hiring is to be delayed until at least mid-September.

W.L. Gore & Associates, Inc. is expanding its Electronic Products Division to Phoenix with a new facility at The Pointe at South Mountain. The new plant will be complete in January and will employ about 100 people. Gore has 29 plants throughout the world, including four in Flagstaff. The Phoenix site will be used to manufacture signal-transmission devices for the computer, aerospace, defense and satellite industries, as well as serve as the firm's sales-service support center for electronic-products division for the western third of the United States.

Mining - Anamax Mining Co. has proposed virtually cutting in half the pay of striking workers at its Twin Buttes Mine as part of a settlement offer. The offer calls for an hourly pay cut of $5 to $6 an hour to end the year-long strike by 380 workers. The workers used to receive an average of $12.50 an hour.

Work at the Tombstone Exploration Inc.'s gold and silver mines has ceased and approximately 100 employees have been laid off. It is unknown how long the plant will remain closed.

Phelps Dodge Corp. has laid off 500 hourly workers from its New Cornelia Branch in Ajo. The company will continue to operate the Ajo smelter and does not plan any shutdowns in Morenci, Bisbee, Douglas, or Tyrone and Hidalgo, New Mexico. About 380 employees, about 180 of whom are hourly workers, are to continue working at Ajo. Aside from the smelter, employees will work at maintenance shops and the power plant.

Asarco Inc. has suspended open-pit mining at its Silver Bell operation north of Tucson, ending work for about 170 of 243 employees. Company spokesmen point to copper prices remaining "at levels near the lowest in real terms in this century" as the reason for the layoffs. In the meantime, Silver Bell's leaching operations, handled by a handful of production workers, will continue.

Closing - Rennie & Co., a 2-1/2-year-old Phoenix securities firm, has gone out of business. The company employed 17 brokers in Phoenix.

Strike Update - A brief strike at the Arizona Portland Cement Co. plant at Rillito has ended. Although workers are negotiating a contact with the company, the walkout was sparked by an unrelated matter -- the union's charge that the company would not allow access to union leaders from outside to examine certain working conditions. Bargaining sessions on the contract are scheduled for September 20 and 21. The company is proposing a three-year contract that would include no pay increase the first year, cuts in benefits and changes in work rules.

Layoffs - Phoenix Baptist Hospitals and Health Systems has laid off 200 employees at its Phoenix hospital and at 12 affiliated hospitals and companies. The layoffs were blamed on a continuing decline in the number of patients and in the length of hospital stays. A spokesman for the hospital said all 200 laid-off workers received two weeks' severance pay, job-placement services and career counseling.

Sentry Insurance Co. is moving to consolidate and reduce staffing at its four regional offices including Scottsdale. According to a company spokesman, the move will result in less than 10 percent of the Scottsdale work force's 750 employees losing their jobs. Sentry is providing placement assistance with other companies for affected personnel.

U-Haul International Inc., the nation's largest move-it-yourself company, has announced plans to lay off thousands of workers and reorganize operations to cut costs. An estimated 100 of the 2,000 Phoenix-area workers will lose their jobs and Sam Shien, spokesman for the parent company Amerco, said that employees who still want to work for the Amerco organization probably will be able to reclaim their jobs in about five months.

Training - Nissan Motor Corp. has established a program at Maricopa Technical Community College to train auto mechanics for dealerships in its Los Angeles region. The first training session, begun July 30, was for Nissan employees in the Phoenix and Tucson Areas. Although the classes are for selected Nissan employees only, Maricopa Tech also offers automotive courses to the general public.

The Marc Center has opened a 3,000-square-foot vocational center in east Mesa to prepare developmentally disabled adults for employment. The facility was constructed through the use of a $100,000 Community Development Block Grant received through the county. The Marc Center contracts with private companies such as Mountain Bell, and participants are paid as they learn new skills with money received through these contracts.

Veterans - A new on-the-job training program for veterans will allow employers to put eligible veterans to work with government assistance in defraying training costs. The program will reimburse employers for half of the starting wage of training or retraining veterans up to a maximum of $10,000. The deadline for application is November 29. Interested employers and veterans can contact the nearest Job Service office. Employers may also call the Veterans Administration Regional Office at 241-2721.

Interstate Job Bank - An Interstate Job Bank begun by the U.S. Department of Labor makes it possible for states to keep tabs on selected jobs anywhere in the United States, as well as advertise their own hard-to-fill vacancies nationally. Under the program, the states each week ship, by overnight air express, a list of their hard-to-fill jobs to the job-bank headquarters in Albany, New York. The jobs are placed on microfiche, which then are immediately sent back to the states. This process will be speeded up when the Labor Department places the job openings on a national computer network, in about two years.

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Arizona Labor Market NEWSLETTER
Arizona Department of Economic Security

Vol. VII No. 10
October 1984

Unemployment Rate

Seasonally Adjusted
August*

ARIZONA	4.3%
Maricopa Co.	3.2%
Pima Co.	3.8%
UNITED STATES	7.5%

Consumer Price Index

National-July
1967 - Base Year

Wage Earner/Clerical Worker -	307.5
% Chg. Yr. Ago	3.1
All Urban -	311.7
% Chg. Yr. Ago	4.1

Phoenix-2nd Qtr.
1977 - Base Year

All Urban -	180.1
% Chg. Yr. Ago	5.6

Producer Price Index

National-August*
1967 - Base Year

All Commodities-	310.9
% Chg. Yr. Ago	2.0
Finished Goods -	291.8
% Chg. Yr. Ago	2.0

* Preliminary

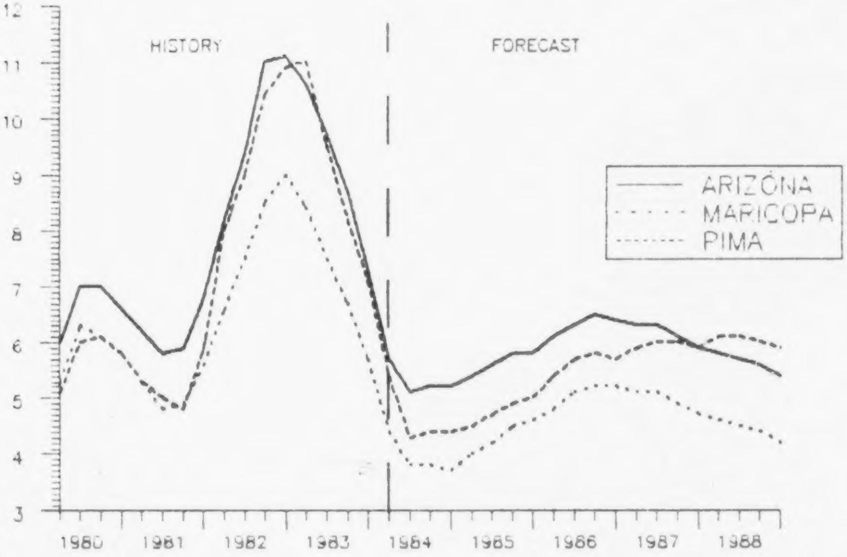
EMPLOYMENT IN ARIZONA: FORECAST UPDATE

It was no surprise to see Arizona's economy bounce back from the 1981-1982 recession. The return of rapid economic expansion in 1983 could be considered a return to the normal growth pattern observed in Arizona from the end of World War II through the 1970s. However, the continued strength and diversity of the economic recovery has been remarkable. The August 1984 unemployment rate of 4.3 percent was Arizona's lowest since February 1970. Over 84,000 jobs will be created in Arizona during 1984, and while the pace of expansion is expected to slow, the state still will grow strongly through 1986. Unemployment may creep upward as job seekers from other states look for work in Arizona, but the rate should remain well below the 10 percent-plus levels seen in 1982 and 1983.

An analysis of the gains in employment reveals some impressive facts. When explosive growth occurred in the past, the mining industry usually was a contributing factor. The last eighteen months have been hard times for copper miners, yet the Arizona economy has added over 1,200 jobs a week. The ability of the economy to prosper despite the depressed copper market reflects an increasing diversity which will help the state to expand its economic base in the future.

The outlook for Arizona is much brighter for the urban areas than it is for the nonmetropolitan counties. The fastest growing area in the state will continue to be Maricopa County. The Phoenix area features a complex economic base consisting of electronics and aerospace manufacturing, tourism, government, agriculture and a growing business and financial services sector. Pima County will grow almost as rapidly as Maricopa County, but the depressed market for copper, combined with a slower recovery in retail trade, will result in a slightly higher unemployment rate. Arizona's nonmetropolitan counties will continue to emerge from a severe recession, but will grow by an average of two to three percent per year, much slower than what the urban areas will experience during the next two years.

ARIZONA
UNEMPLOYMENT RATE
QUARTERLY AVERAGES, SEASONALLY ADJUSTED



MARICOPA COUNTY

Maricopa County is the fastest growing region in Arizona and ranks among the fastest growing areas in the nation. There is no single reason for the explosive growth observed in the Phoenix -- area-manufacturing, tourism, commercial expansion and housing construction all have played major roles, but hefty increases in employment have been registered in a wide range of industries.

The economic recovery of 1983 was led by a tidal wave of residential construction activity. Stable interest rates and rapid increases in the local population have ensured a robust housing market through 1984. As the product mix shifts away from single family units toward apartments and condominiums, vacancy rates in the county may climb enough to discourage new projects. However, there are enough commercial and industrial projects under way to prevent construction employment from falling very much during the next two years.

Manufacturing employment in Maricopa County has increased steadily during the year, growing at an eight percent-plus annual rate. Durable goods producers, especially the electronics, aerospace and defense-related industries, will continue to add workers at a brisk pace as they expand their operations in the area. Most of the increases in manufacturing employment in the future will be in the county's high technology firms.

The service and trade sectors will provide the largest numbers of job openings during the next two years. Several new resorts and commercial hotels will be opened, bringing even more tourist and convention dollars into the Phoenix area economy. Population and employment gains, combined with higher levels of tourism, will generate more demand in population-serving industries such as retail trade and financial services. Business services have boomed in response to the higher volume of commerce in the area and will be a major source of growth. Employment in banking, public utilities, communications and wholesale trade also is expected to rise as the Phoenix area continues to gain prominence as a regional center providing a wide range of amenities to the economy of the Southwest.

The effects of the recent surge in the Phoenix metropolitan population on the public sector have been substantial. Despite limited budget resources, local governments and school districts are expanding their staffs in response to increasing demand for basic public services. Employment in the county's schools and colleges will rise by nearly eight percent this year, a huge increase in comparison to many regions where school enrollments are falling. State government will grow as well, although less rapidly, while federal hiring will continue to be very slow.

All in all, the recent record and future prospects of the Maricopa County economy are excellent. Unemployment will rise somewhat from its current low levels, but joblessness will be much less severe than it will be in other parts of Arizona. The Phoenix metropolitan area has created tens of thousands of new jobs in the last 18 months; the next 18 months will bring more, but the rate of growth should slow down in response to more moderate expansion at the national level.

PIMA COUNTY

While much of southeastern Arizona struggled through difficult times, Pima County entered a period of rapid recovery and expansion in 1983. The county's increasingly diverse economy has managed to withstand the problems created by dismal conditions in the copper industry and the Mexican economy. We expect unemployment to remain relatively low and economic growth to proceed in Pima County at a healthy pace through the next two years.

Tucson's retail trade sector does not depend on purchases by Mexican citizens as much as it did in the past, but the impact of a strong dollar and the relative weakness of the peso has been felt. This factor, combined with a somewhat overbuilt market for retail space, held growth in retail trade employment below the rate of growth observed in the Phoenix area. Layoffs in the copper industry also reduced incomes in many households and contributed to the sluggishness in trade activity. It is apparent in 1984 that the Pima County economy has adjusted to these conditions and employment in retail establishments will rise by nearly seven percent in 1985.

The market forces behind the expansion of employment in service industries in Maricopa County are also present in Pima County, but to a lesser degree. Resort and hotel construction continues to boom. Tourist and convention activity is expected to increase accordingly, creating more jobs in trade, business and personal services. Construction employment by home builders will fall off if interest levels go up next year, but high levels of multi-family and commercial building should prevent massive layoffs from taking place.

The county's manufacturing sector will grow by more than five percent in 1985. The

Tucson metropolitan area shares many of the characteristics that make Maricopa County an attractive location for high technology production facilities: relatively low labor costs, available land, a warm, dry climate, and good opportunities for education and recreation. These advantages should guarantee a prominent role for high technology in the area economy for years to come.

The outlook for Pima County is generally sanguine, with dim prospects for the copper companies and their suppliers. Unemployment will rise in the area as the Tucson labor market absorbs dislocated workers from the border counties and the copper mines. Nevertheless, the local economy is on a roll, and the solid performance of 1984 will continue, at a more moderate rate, through 1985 and into 1986.

NONMETROPOLITAN ARIZONA

The nonmetropolitan counties continue to experience higher unemployment and slower job growth than Arizona's urban counties, but the situation is much improved over last year. As expected, copper mining communities around the state are struggling; every announcement of hiring activity seems to be offset by cutbacks at other locations. Despite the strength of the national economy, few gains are expected in the number of workers employed at the mines and smelters during the next couple of years. As a result, unemployment will remain high in copper mining regions.

Job creation in retail trade establishments has been disappointing this year. In southern Arizona, the weakness of the Mexican economy and the strength of the dollar against the peso have made American goods too expensive for Mexican customers. Employment in border communities will not rise substantially until Mexico's economic problems have diminished. In northern Arizona, the summer tourism season was a disappointment. The summer Olympics in California appear to have cut into Arizona's tourist business instead of producing the additional traffic everyone hoped for. Visits to national parks and monuments fell below expected levels. The strong position of the dollar in international currency markets was a factor in preventing large numbers of foreign visitors from visiting the state.

Manufacturing activity has been mixed. Increases have been recorded in the Flagstaff, Prescott, Casa Grande and Lake Havasu areas, but lumber and wood products have not performed as well. Much of the growth in the near future will be in food processing and apparel manufacturing, with additional gains to be made in the production of machinery and fabricated metals.

The service industries in the nonmetropolitan areas are heavily influenced by tourist activity. Employment in hotels and motels, recreational services, medical services and retail stores should rise along with expected levels of tourism next year. The winter season should be at least as strong as last year or stronger; brisk construction activity in the Colorado River communities is an encouraging sign. The national economy will be vigorous enough to stimulate a stronger summer season next year.

While job prospects for Arizona's nonmetropolitan residents will not be as plentiful as they are in the Phoenix and Tucson areas, there will be moderate growth in most areas of the state. Growth will occur in trade and services, with small increases likely in manufacturing and construction. Unemployment may rise next year but should remain well below the very high levels observed in 1982 and 1983.

Brian Cary

ARIZONA
(annual averages, in thousands)

	1983	1984	PERCENT CHANGE	1985	PERCENT CHANGE	1986	PERCENT CHANGE
LABOR FORCE	1,376.0	1,409.7	2.5	1,473.8	4.6	1,533.2	4.0
UNEMPLOYMENT	125.0	74.0	-40.8	82.4	11.4	97.6	18.5
EMPLOYMENT	1,251.0	1,335.7	6.8	1,391.4	4.2	1,435.6	3.2
UNEMPLOYMENT RATE	9.1%	5.2%		5.6%		6.4%	
WAGE AND SALARY EMPLOYMENT	1,064.5	1,140.2	7.1	1,184.2	3.9	1,222.1	3.2
MANUFACTURING	155.7	168.2	8.0	176.0	4.6	180.9	2.8
MINING	14.2	14.4	1.4	14.2	-1.4	14.7	3.2
CONSTRUCTION	76.4	88.4	15.7	85.7	-3.1	85.3	-0.5
TCPU	56.0	59.0	4.3	61.4	4.0	63.4	3.2
TRADE	257.3	273.9	6.5	289.5	5.7	300.7	3.9
FIRE	65.4	69.2	5.8	71.8	3.8	73.8	2.7
SERVICES	237.4	258.1	8.7	272.1	5.4	284.6	4.6
GOVERNMENT	202.1	208.8	3.3	213.4	2.2	218.7	2.5

MARICOPA COUNTY
(annual averages, in thousands)

	1983	1984	PERCENT CHANGE	1985	PERCENT CHANGE	1986	PERCENT CHANGE
LABOR FORCE	851.4	890.3	4.6	937.5	5.3	976.4	4.1
UNEMPLOYMENT	60.1	35.0	-41.8	40.2	15.0	49.9	23.9
EMPLOYMENT	791.3	855.3	8.1	897.3	4.9	926.5	3.3
UNEMPLOYMENT RATE	7.1%	3.9%		4.3%		5.1%	
WAGE AND SALARY EMPLOYMENT	686.7	744.2	8.4	776.5	4.3	802.3	3.3
MANUFACTURING	112.1	121.5	8.4	127.6	4.9	131.0	2.7
MINING	0.6	0.7	10.0	0.7	0.4	0.7	-1.0
CONSTRUCTION	53.2	61.3	15.2	58.9	-3.9	58.4	-0.9
TCPU	35.8	38.2	6.7	39.8	4.1	41.1	3.3
TRADE	173.9	186.6	7.3	197.2	5.7	204.5	3.7
FIRE	51.1	54.2	6.1	56.5	4.1	58.2	3.1
SERVICES	159.1	175.6	10.4	186.0	5.9	194.4	4.5
GOVERNMENT	101.0	106.1	5.0	109.9	3.7	114.0	3.7

PIMA COUNTY

(annual averages, in thousands)

	1983	1984	PERCENT CHANGE	1985	PERCENT CHANGE	1986	PERCENT CHANGE
LABOR FORCE	255.6	259.1	1.4	269.2	3.9	281.6	4.6
UNEMPLOYMENT	22.8	11.1	-51.3	12.1	8.5	15.6	29.2
EMPLOYMENT	232.8	248.0	6.5	257.1	3.7	266.0	3.4
UNEMPLOYMENT RATE	8.9%	4.3%		4.9%		5.5%	
WAGE AND SALARY EMPLOYMENT	196.7	210.0	6.8	218.0	3.8	225.1	3.2
MANUFACTURING	26.6	28.6	7.5	30.1	5.3	31.2	3.6
MINING	3.6	3.9	8.3	3.7	-4.7	3.9	3.9
CONSTRUCTION	14.8	18.2	23.0	18.0	-1.2	18.1	1.0
TCPU	8.5	9.0	5.9	9.3	2.9	9.5	1.9
TRADE	42.9	44.8	4.4	47.8	6.7	49.8	4.1
FIRE	9.2	9.7	5.4	9.9	2.4	10.0	0.9
SERVICES	45.8	49.0	7.0	51.7	5.6	54.5	5.4
GOVERNMENT	45.4	46.9	3.3	47.5	1.4	48.1	1.3

NONMETROPOLITAN COUNTIES

(annual averages, in thousands)

	1983	1984	PERCENT CHANGE	1985	PERCENT CHANGE	1986	PERCENT CHANGE
LABOR FORCE	269.0	260.2	-3.3	267.0	2.6	275.3	3.1
UNEMPLOYMENT	42.1	27.8	-33.9	30.0	8.0	32.1	6.8
EMPLOYMENT	226.9	232.4	2.4	237.0	2.0	243.2	2.6
UNEMPLOYMENT RATE	15.7%	10.7%		11.2%		11.7%	
WAGE AND SALARY EMPLOYMENT	181.1	185.9	2.7	189.7	2.0	194.8	2.7
MANUFACTURING	17.0	18.1	6.5	18.3	1.5	18.7	2.2
MINING	10.0	9.8	-2.0	9.8	-0.3	10.1	3.3
CONSTRUCTION	8.4	8.9	6.0	8.8	-0.9	8.8	-0.6
TCPU	11.7	11.8	0.9	12.4	4.4	12.8	3.9
TRADE	40.5	42.5	4.9	44.5	4.6	46.4	4.2
FIRE	5.1	5.3	3.9	5.4	2.6	5.6	2.3
SERVICES	32.5	33.5	3.1	34.5	2.8	35.7	3.6
GOVERNMENT	55.7	55.9	0.4	55.9	0.0	56.7	1.3

THE ARIZONA LABOR FORCE IN AUGUST 1984

Arizona's unemployment rate continued its downward trend in August, dipping to 4.3 percent, the lowest since the 4.3 percent rate recorded in January and February 1970. With the national unemployment rate remaining steady at 7.5 percent, the Arizona economy is showing exceptional strength. Unemployment in Maricopa and Pima counties, the major metropolitan areas in the state is less than half of what it was only one year ago.

Employment in manufacturing rose by more than 600 in August, making 12 consecutive months of increases. Most of the gains were observed in durable goods manufacturing, but seasonal food processing was responsible for creating some jobs in the southern part of the state. Manufacturing, especially in the high technology industries, should continue to be an important source of new jobs in the months to come. Although most of the increases in manufacturing have been registered in the metropolitan areas, producers of machinery and other durable goods throughout the state have added to their workforces.

Employment in construction has leveled off for the last two months, probably reflecting the rise in interest rates and reduced housing starts observed earlier this year. The gradual decline in interest rates we have seen recently may prevent a sharp decline in employment from occurring. However, if long term interest rates resume an upward trend, reduced demand for new housing may result in some layoffs by home builders and a corresponding increase in unemployment. The only other industry that is likely to lay off many workers in the near future is mining, which lost over 400 jobs in August.

With the summer tourist season nearing an end, the service and trade industries were relatively static last month. As a whole, employment in the services industries was off by 500 in August, somewhat less than the expected seasonal decline. Much of the strength was in the form of 1,200 new jobs in business services. The increased demand for temporary help, building security and maintenance, legal services and financial services is most evident in the Phoenix and Tucson areas and should continue to rise along with the volume of business activity in the state. Much of last month's decline in services-related employment was due to staff reductions by summer resort and hotel operators and by non-profit organizations winding down their summer youth programs.

With employment rising in the schools and colleges, the fall retail season coming up, and the winter tourism season around the corner, the next few months should bring many more job opportunities, mostly in Maricopa and Pima counties. While the unemployment rate may rise a little, Arizona's economy should continue to expand through the end of the year.

ARIZONA UNEMPLOYMENT INSURANCE ACTIVITIES - MAY 1984

	July 1984	June 1984	July 1983	% Change From One Year Ago
Arizona Claimants Served*	28,160	30,652	47,054	-40.2%
Arizona Average Weeks Unemployed**	8.8	8.7	9.7	- 9.3%
Arizona Benefits Paid*	$ 8,659,073	$ 9,449,184	$ 15,004,263	-42.3%
Arizona Trust Fund Balance	$222,160,497	$206,595,202	$171,508,504	+29.5%

*All Programs **UI Only

August 1984 (in thousands)

	ARIZONA				
				-- Amt Change --	
	Aug.* 1984	Jul. 1984	Aug. 1983	Jul. to Aug.	1983 to 1984
TOTAL CIVILIAN LABOR FORCE	1377.5	1378.1	1354.0	-0.6	+23.5
Total Unemployment	61.8	68.5	122.3	-6.7	-60.5
Rate	4.5	5.0	9.0	---	---
Rate (Sea. Adj.)**	4.3	4.7	8.8	---	---
Total Employment	1315.7	1309.6	1231.7	+6.1	+84.0

THE ABOVE LABOR FORCE STATISTICS SHOULD NOT

NONAGRICULTURAL WAGE AND SALARY EMPLOYMENT BY PLACE OF WORK

	Aug.* 1984	Jul. 1984	Aug. 1983	Jul. to Aug.	1983 to 1984
TOTAL WAGE AND SALARY	1114.8	1111.9	1037.7	+2.9	+77.1
Manufacturing	170.9	170.2	157.1	+0.7	+13.8
Durable Goods	135.1	134.4	122.1	+0.7	+13.0
Stone, Clay and Glass	6.9	6.9	6.5	+0.0	+0.4
Primary and Fabricated Metals	16.0	15.8	13.4	+0.2	+2.6
Primary Metals	6.7	6.6	5.4	+0.1	+1.3
Fabricated Metals	9.3	9.2	8.0	+0.1	+1.3
Machinery	67.4	67.2	62.0	+0.2	+5.4
Other Durable Goods	44.8	44.5	40.2	+0.3	+4.6
Aircraft and Missiles	20.3	20.0	17.9	+0.3	+2.4
Lumber and Wood Products (Except Furniture)	6.8	6.9	7.1	-0.1	-0.3
All Other Durable Goods	17.7	17.6	15.2	+0.1	+2.5
Nondurable Goods	35.8	35.8	35.0	+0.0	+0.8
Food and Kindred Products	7.8	7.7	8.1	+0.1	-0.3
Apparel	5.0	5.0	5.2	+0.0	-0.2
Printing and Publishing	12.9	12.9	12.2	+0.0	+0.7
All Other Nondurable Goods	10.1	10.2	9.5	-0.1	+0.6
Mining and Quarrying	13.4	13.8	13.3	-0.4	+0.1
Copper Mining	10.4	10.8	10.4	-0.4	+0.0
Other Mining and Quarrying	3.0	3.0	2.9	+0.0	+0.1
Construction	91.1	91.1	80.9	+0.0	+10.2
Trans., Communications, and Public Utilities	59.4	59.5	48.4	-0.1	+11.0
Transportation	25.3	25.4	23.7	-0.1	+1.6
Communications and Public Utilities	34.1	34.1	24.7	+0.0	+9.4
Trade	268.9	268.9	253.9	+0.0	+15.0
Wholesale Trade	54.5	54.3	51.0	+0.2	+3.5
Retail Trade	214.4	214.6	202.9	-0.2	+11.5
General Merchandise and Apparel	36.9	37.0	34.9	-0.1	+2.0
Food Stores	34.1	34.4	32.6	-0.3	+1.5
Automotive and Service Stations	26.0	25.8	24.7	+0.2	+1.3
Eating and Drinking Places	74.4	74.6	70.0	-0.2	+4.4
Other Retail Trade	43.0	42.8	40.7	+0.2	+2.3
Finance, Insurance, and Real Estate	69.5	69.5	66.2	+0.0	+3.3
Services and Miscellaneous	256.9	257.4	237.4	-0.5	+19.5
Hotels and Other Lodging Places	25.6	26.2	22.9	-0.6	+2.7
Business Services	55.4	54.2	47.4	+1.2	+8.0
Health Services	67.1	67.2	64.3	-0.1	+2.8
Other Services	108.8	109.8	102.8	-1.0	+6.0
Government	184.7	181.5	180.5	+3.2	+4.2
Federal	40.6	39.7	38.6	+0.9	+2.0
State and Local	144.1	141.8	141.9	+2.3	+2.2
School	73.4	70.1	73.1	+3.3	+0.3

* Preliminary

** Normal seasonal variations have been eliminated to reflect underlying economic trends.

NOTE--Prepared in cooperation with the U.S. Department of Labor, Bureau of Labor Statistics.

August 1984 (in thousands)

MARICOPA COUNTY					PIMA COUNTY				
			-- Amt Change --					-- Amt Change --	
Aug.* 1984	Jul. 1984	Aug. 1983	Jul. to Aug.	1983 to 1984	Aug.* 1984	Jul. 1984	Aug. 1983	Jul. to Aug.	1983 to 1984
872.2	873.1	839.5	-0.9	+32.7	255.0	251.5	248.5	+3.5	+6.5
29.1	31.2	56.9	-2.1	-27.8	10.0	10.0	20.6	+0.0	-10.6
3.3	3.6	6.8	---	---	3.9	4.0	8.3	---	---
3.2	3.4	6.6	---	---	3.8	3.8	8.1	---	---
843.1	841.9	782.6	+1.2	+60.5	245.0	241.5	227.9	+3.5	+17.1

USED FOR ECONOMIC ASSISTANCE PROGRAMS.

NONAGRICULTURAL WAGE AND SALARY EMPLOYMENT BY PLACE OF WORK

727.2	728.5	672.2	-1.3	+55.0	205.0	202.4	189.8	+2.6	+15.2
123.2	123.2	113.0	+0.0	+10.2	29.3	29.1	26.9	+0.2	+2.4
98.5	98.1	88.8	+0.4	+9.7	24.5	24.3	22.1	+0.2	+2.4
4.2	4.2	4.0	+0.0	+0.2					
10.1	10.0	8.3	+0.1	+1.8					
54.0	53.9	49.3	+0.1	+4.7					
30.2	30.0	27.2	+0.2	+3.0					
24.7	25.1	24.2	-0.4	+0.5	4.8	4.8	4.8	+0.0	+0.0
5.0	5.2	5.4	-0.2	-0.4					
2.9	2.9	3.0	+0.0	-0.1					
9.5	9.5	9.0	+0.0	+0.5					
7.3	7.5	6.8	-0.2	+0.5					
0.7	0.7	0.6	+0.0	+0.1	3.3	3.8	3.2	-0.5	+0.1
62.9	63.1	56.0	-0.2	+6.9	18.9	18.9	16.1	+0.0	+2.8
38.6	38.6	30.7	+0.0	+7.9	9.1	9.1	6.9	+0.0	+2.2
16.9	16.9	15.8	+0.0	+1.1	4.1	4.1	3.7	+0.0	+0.4
21.7	21.7	14.9	+0.0	+6.8	5.0	5.0	3.2	+0.0	+1.8
183.2	183.4	171.2	-0.2	+12.0	43.6	43.5	42.6	+0.1	+1.0
43.9	43.7	40.9	+0.2	+3.0	6.4	6.4	6.3	+0.0	+0.1
139.3	139.7	130.3	-0.4	+9.0	37.2	37.1	36.3	+0.1	+0.9
23.7	23.9	22.0	-0.2	+1.7	6.5	6.5	6.5	+0.0	+0.0
21.9	22.1	20.7	-0.2	+1.2	5.5	5.4	5.4	+0.1	+0.1
16.9	16.8	15.8	+0.1	+1.1	4.1	4.1	4.0	+0.0	+0.1
46.8	47.2	43.9	-0.4	+2.9	13.7	13.6	13.1	+0.1	+0.6
30.0	29.7	27.9	+0.3	+2.1	7.4	7.5	7.3	-0.1	+0.1
54.4	54.5	51.7	-0.1	+2.7	9.8	9.7	9.4	+0.1	+0.4
173.3	173.3	157.9	+0.0	+15.4	48.6	48.9	45.5	-0.3	+3.1
13.7	14.1	12.0	-0.4	+1.7	4.1	4.2	3.6	-0.1	+0.5
46.1	45.0	39.1	+1.1	+7.0	7.7	7.6	6.7	+0.1	+1.0
45.5	45.5	43.1	+0.0	+2.4	13.8	13.8	13.7	+0.0	+0.1
68.0	68.7	63.7	-0.7	+4.3	23.0	23.3	21.5	-0.3	+1.5
90.9	91.7	91.1	-0.8	-0.2	42.4	39.4	39.2	+3.0	+3.2

-- Prepared by Labor Market Information, Research and Analysis (CPS-MOD, 1/84)

METROPOLITAN COUNTIES LABOR FORCE AND EMPLOYMENT

August 1984 (Preliminary)

	Apache	Cochise	Coconino	Gila	Graham	Green-lee	La Paz
TOTAL CIVILIAN LABOR FORCE*.	13,400	27,675	34,825	13,600	6,975	3,800	4,550
Total Unemployment	1,400	1,675	2,125	1,225	550	225	550
Rate	10.4%	6.1%	6.1%	9.0%	7.9%	5.9%	12.1%
Rate (Seas. Adj.)**. . . .	10.3%	6.1%	6.1%	9.2%	7.4%	5.7%	-INA-
Total Employment	12,000	26,000	32,700	12,375	6,425	3,575	4,000

THE ABOVE LABOR FORCE STATISTICS SHOULD NOT BE USED
FOR ECONOMIC ASSISTANCE PROGRAMS

	Apache	Cochise	Coconino	Gila	Graham	Green-lee	La Paz
TOTAL WAGE AND SALARY. . . .	12,625	21,100	30,725	9,975	4,025	3,075	2,400
Manufacturing.	700	1,700	2,625	1,350	125	325	100
Mining and Quarrying	50	350	50	1,650	100	1,650	0
Construction	1,550	900	1,150	500	125	50	75
Trans., Comm., & Pub. Util..	1,650	1,350	2,250	275	150	50	50
Trade.	1,075	4,375	7,200	1,750	1,150	350	800
Fin., Insur., & Real Estate.	175	625	600	225	125	25	100
Services and Miscellaneous .	3,200	2,600	7,975	1,725	700	100	725
Government	4,225	9,200	8,875	2,500	1,550	525	550

	Mohave	Navajo	Pinal	Santa Cruz	Yavapai	Yuma
TOTAL CIVILIAN LABOR FORCE*.	21,475	23,100	28,375	8,400	29,525	34,575
Total Unemployment	1,500	2,050	2,675	1,425	1,775	5,475
Rate	7.0%	8.9%	9.4%	17.0%	6.0%	15.8%
Rate (Seas. Adj.)**. . . .	7.0%	9.1%	9.0%	14.0%	6.4%	-INA-
Total Employment	19,975	21,050	25,700	6,975	27,750	29,100

THE ABOVE LABOR FORCE STATISTICS SHOULD NOT BE USED
FOR ECONOMIC ASSISTANCE PROGRAMS

	Mohave	Navajo	Pinal	Santa Cruz	Yavapai	Yuma
TOTAL WAGE AND SALARY. . . .	15,150	16,450	21,825	7,000	16,575	21,325
Manufacturing.	2,275	1,775	2,700	875	2,075	1,625
Mining and Quarrying	250	1,100	3,875	25	300	50
Construction	950	625	625	225	950	1,550
Trans., Comm., & Pub. Util..	950	1,625	975	550	875	1,000
Trade.	4,500	3,125	3,725	2,775	4,575	6,625
Fin., Insur., & Real Estate.	725	275	725	225	725	750
Services and Miscellaneous .	3,025	4,300	2,350	1,050	3,225	3,900
Government	2,475	3,625	6,850	1,275	3,850	5,825

*Adjusted to the Current Population Survey (CPS) to reflect place of residence.
**Seasonal adjustment not applicable for economic assistance programs.

NOTE--Series for Yuma and La Paz counties start January 1983. Data are not comparable to any past series.

Prepared in conjunction with the U.S. Department of Labor, Bureau of Labor Statistics.

ARIZONA LABOR FORCE AND EMPLOYMENT FOR ECONOMIC ASSISTANCE PROGRAMS

June 1984 (Final)

County	Civilian Labor Force	Employment	Unemployment	Rate
Statewide	1,393,110	1,320,082	73,028	5.2%
Apache	13,961	11,847	2,114	15.1
Cochise	28,105	26,026	2,079	7.4
Coconino	35,543	32,441	3,102	8.7
Gila	13,682	12,147	1,535	11.2
Graham	7,083	6,468	615	8.7
Greenlee	3,861	3,577	284	7.4
La Paz	4,718	4,224	494	10.5
Maricopa	880,177	845,835	34,342	3.9
Mohave	21,205	19,459	1,746	8.2
Navajo	24,067	21,221	2,846	11.8
Pima	257,301	246,280	11,021	4.3
Pinal	28,719	25,576	3,143	10.9
Santa Cruz	8,386	7,071	1,315	15.7
Yavapai	30,024	27,899	2,125	7.1
Yuma	36,278	30,011	6,267	17.3

These figures are the only official BLS labor statistics to be used for revenue sharing purposes. They are not designed to be used as economic indicators. Note: Series for Yuma and La Paz counties start January 1983. Data are not comparable to any past series.

ESTIMATED HOURS AND EARNINGS OF PRODUCTION WORKERS IN SELECTED INDUSTRIES IN ARIZONA

August 1984

INDUSTRY	AVERAGE WEEKLY EARNINGS			AVERAGE WEEKLY HOURS			AVG. HOURLY EARNINGS		
	AUG.* 1984	JULY 1984	AUG. 1983	AUG.* 1984	JULY 1984	AUG. 1983	AUG.* 1984	JULY 1984	AUG. 1983
FOR THE STATE OF ARIZONA*									
Manufacturing	367.34	384.70	361.89	40.5	41.5	40.3	9.07	9.27	8.98
Aircraft & Missiles	INA	INA	471.50	INA	INA	41.8	INA	INA	11.28
Food & Kindred Products	290.47	299.20	347.51	39.2	40.0	39.4	7.41	7.48	8.82
Primary Metals	483.60	493.28	331.10	40.3	40.4	27.5	12.00	12.21	12.04
Machinery	332.45	354.89	357.62	40.2	42.4	41.2	8.27	8.37	8.68
Copper Mining	562.52	549.84	533.57	41.0	40.4	39.7	13.72	13.61	13.44
Construction	435.34	432.03	439.11	37.4	36.8	36.2	11.64	11.74	12.13
Utilities	535.67	535.67	469.98	43.8	43.8	39.1	12.23	12.23	12.02
Retail Trade**	237.65	236.27	217.94	35.0	34.9	34.0	6.79	6.77	6.41
Wholesale Trade	350.21	359.33	351.16	38.4	39.4	39.5	9.12	9.12	8.89

* Preliminary

** Excludes eating and drinking places.

NOTE--These estimates are based on a sample of full and part-time production and related employees whose payroll and hours are reported for the pay period which includes the 12th of the month. Prepared in cooperation with the U.S. Department of Labor, Bureau of Labor Statistics.

--Prepared by Labor Market Information, Research and Analysis (1972 SIC, 1/84)

CHANGES IN THE MARICOPA COUNTY LABOR FORCE
1970-1980

The 1980 Census revealed some interesting changes in the labor force of Maricopa County since 1970: increases in the proportion of women in the labor force, shifts in the civilian labor force participation rates, and significant movements in the sexual composition of workers in selected occupations.

During the 10-year period 1970-1980, the proportion of women in the Maricopa County labor force increased from less than 39 percent to 42.2 percent. This increasing participation of women in the labor force was not limited, of course, to Maricopa County. In the U.S. as a whole, women have been entering the work force in steady numbers since World War II, a trend that has been reinforced by the increasing importance of the services and retail trade sectors in which females are so heavily represented.

The 1980 Census also showed a small decline since 1970 in the percentage of workers of Spanish heritage in Maricopa County's civilian labor force. While the racial proportions for the work force remained at about 83.5 percent white and 16.5 minorities for both censuses, workers of Spanish extraction declined from 12.1 to 11.4 percent. This decrease was chiefly attributable to males; white males also declined from 51.0 percent of the civilian labor force to 48.0 percent between 1970 and 1980.

The civilian labor force participation rates reveal similar shifts. Participation rates are calculated from Census data on individuals 16 years and over who are employed or unemployed (that is, working or seeking work) as a proportion of the total number of individuals 16 years and over. In the 1980 Census, over one-half (50.3 percent) of the women in Maricopa County, 16 years and over, had joined the labor force, up from 42.3 percent in the 1970 Census. The county's male civilian labor force participation rate was 73.5 percent, down from 76.3 percent in 1970.

The highest female participation rates in Maricopa County are among minorities. In 1980, 57.6 percent of Native American women and 55.9 percent of Black women were in the labor force. The largest increase between 1970 and 1980 was for women of Spanish heritage, up 14.7 percent to 49.5 percent.

Despite this large increase in participation rates of Spanish heritage women, there was a large drop in the participation rate for all persons of Spanish heritage in Maricopa County from 78.0 percent in 1970 to 64.7 percent in 1980. Total white participation in the labor force increased during the period 1970-1980 from 55.8 percent to 56.5 percent; for all minorities, participation rose from 61.3 percent to 63.2 percent.

Wage and salary employment for Maricopa County also changed markedly between 1970 and 1980. The county's total nonagricultural wage and salary employment nearly doubled, up 94.4 percent. Manufacturing employment showed the lowest gain at 60.6 percent and construction the highest, 141.5 percent. Employment in services and trade rose 100.0 percent and government employment rose 73.2 percent.

As a proportion of total wage and salary employment, decreases occurred between 1970 and 1980 in manufacturing (21.7 to 17.9) and government (17.8 to 15.8). Increases occurred in wholesale trade (6.0 to 6.2), retail trade (18.8 to 19.3), and services (16.8 to 20.9).

The sexual composition of Maricopa County workers changed for many occupations. Using a selected list (job categories between the 1970 and 1980 Censuses are not entirely comparable), some surprising changes may be noted. For example, among female-dominated occupations, male participation rates increased in such occupations as assembler (20.3 to 33.9); elementary and pre-kindergarten teachers (19.7 to 24.6) and private household workers (4.0 to 7.3). Male participation rates in 1980 for other selected occupations dominated by females are as follows:

	MALE (1980)
File Clerks	19.0%
Librarians	15.2
Office Machine Operators	33.9
Payroll & Timekeeping Clerks	17.3
Receptionists	1.9
Restaurant, Cafe Managers	41.6
RNs, Dieticians & Therapists	5.7
Secretaries	1.1
Stenographers	20.8
Telephone Operators	8.7
Typists	3.0
AVERAGE	15.3

Among male-dominated occupations, female participation rates increased between 1970 and 1980 in Maricopa County in such occupations as accountant (32.2 to 45.3); secondary teachers(47.5 to 54.3); and writers, artists and entertainers (27.3 to 41.3). Female participation rates in 1980 for other selected occupations dominated by males are as follows:

	FEMALE (1980)
Bakers	46.8%
Bus Drivers	38.2
Construction Laborers	3.7
Construction Trades	2.2
Engineers	6.2
Freight, Stock, & Material Handlers	18.7
Health Diagnosing, Physicians, Dentists, Etc.	8.1
Lawyers & Judges	14.1
Meat Cutters & Butchers	5.2
Mechanics & Repairmen	4.5
Protective Service Workers	11.5
Sales Representatives	15.6
Specified Managers & Administrators, Public Administration	31.6
Taxicab Drivers & Chauffers	16.9
AVERAGE	16.0

It is obvious that Maricopa County has experienced many changes in its labor force and wage and salary employment between 1970 and 1980. For additional information about the civilian labor force and occupations by sex and minority status for Maricopa County (including Glendale, Mesa, Phoenix, Scottsdale and Tempe), write Labor Market Information Publications at Site Code 733A, P.O. Box 6123, Phoenix, Arizona 85005 and request the publication, Affirmative Action Planning Information. Separate reports are also available for Pima County and Tucson; Apache, Coconino, Navajo and Yavapai counties; Mohave and Yuma counties; Gila and Pinal counties; and Cochise, Graham, Greenlee and Santa Cruz counties.

Glede Kohler

NEW DEVELOPMENTS

Construction - Construction has begun on the $100 million Brookview Country Club, hotel and residential development at Bell Road and 115th Avenue in Surprise. The 370-acre development will produce about 150 permanent jobs, plus part-time employment, and will increase the town's tax base by 30 to 40 percent when it is completed in four years.

Construction has begun on the first phase of a $100 million multiuse building complex in Tempe. The Southwest Technology Center on the southwestern corner of Rural Road and Lakeshore Drive will feature three office towers, a hotel and commercial facilities when fully developed.

Manufacturing - The Phoenix manufacturing plant for American Telephone and Telegraph Technologies plans to add 1,000 employees by next summer as it moves toward making all of AT&T's telephone cords and most of its copper communications cables. About 150 people laid off at other AT&T divisions in Arizona already have been hired. Company spokesman has stated that the Phoenix plant already has 5,000 applications from which it will hire.

A subsidiary of a Racine, Wisconsin, company has announced plans to build a new plant at Rio Rico to make touch-key pads used in a wide range of electronic business and consumer equipment. Moxness Products, a subsidiary of Versa-Technologies, said it plans to employ 30 to 35 people when the plant is completed late this year.

Bayliner Marine Corp., an Arlington, Washington, firm with 10 manufacturing plants nationwide, hopes to be in production by January at a new plant at the Kingman Industrial Park. Bayliner plans to build a 30,000-to 40,000-square-foot facility that initially will employ 35 people in the manufacture of fiberglass recreational boats. The plant will eventually employ at least 100.

Employee turnover in Arizona's electronics and information technology companies dipped below the national average in 1983 according to a study by the American Electronics Association. AEA member companies have reported turnover data showing Arizona's rate at 19.3 percent, compared to the national average of 21.4 percent. The San Francisco Bay area, including the Silicon Valley, reported the highest turnover at 27.8 percent. Midwest companies reported the lowest rate at 10.4 percent.

Printing - Casa Grande and Yuma are being considered by the Meredith Corporation as possible locations for a multimillion-dollar commercial printing plant that would employ about 200 people. The company, which owns Phoenix television station KPHO, hopes to have the $47 million plant completed and in operation by mid- 1986.

Mining - Another 100 employees at Phelps Dodge Corporation's new Cornelia branch in Ajo have been laid off, raising to about 600 the number of workers furloughed there in less than three weeks. The latest layoffs included 80 salaried employees, many of them managers and supervisors. A company spokesman said the layoffs are temporary but for an indefinite period.

At the Phelps Dodge silica flux and silver mine between Safford and Duncan, the entire staff of 21 people has been laid off. Reopening the mine will depend on the price of silver, a company official said.

Anti-mine forces in Prescott have succeeded in getting the U.S. Forest Service to draw up a full environmental-impact statement on a land exchange that would provide the Phelps Dodge Corporation with a mill site southwest of town. The mine has been a focal point of controversy in Prescott since May, when the Forest Service said it was nearing agreement with Phelps Dodge on the land exchange.

The Regan administration has rejected a recommendation by the International Trade Commission that controls be imposed on imports of lower-priced foreign copper. In 1983, Arizona was the largest producer of copper in the U.S., accounting for 67 percent of total output. Other large copper-producing states are Utah, with 14 percent of the nation's output, followed by New Mexico, with 10 percent.

Hotels - Best Western International, the world's largest lodging chain, has been named Employer of the Year by the Southwest Project with Industry, an Arizona-based job search training and placement assistance program for disabled persons.The award recognizes Best Western headquarters' continuing efforts to provide employment for the handicapped.

Bisbee's Industrial Development Authority has agreed to sell the historic Phelps Dodge Corporation mercantile building to the Collier-Craft Development Company for $750,000. Collier-Craft plans construction of a three-story, 60-room hotel on vacant land adjacent to the old Phelps Dodge building. The old mercantile building would become the lobby for the proposed hotel.

Retail - The Sears outlet in Douglas closed after 48 years in business. The store employs a dozen people, but they have been offered other jobs with the company.

Construction has begun on a $1.1 million Chevrolet automobile dealership in Show Low. Approximately 25-30 people will be employed initially.

Inmates Hired - American Rockwool's Casa Grande plant, in an effort to combat a 30 percent turnover rate, has contracted with the Department of Corrections to use 30 minimum security inmates. They will join 90 other employees at Rockwool's insulation manufacturing plant.

Layoffs - The Evergreen Lumber Company has closed operations in Snowflake, Heber and Williams. The closing, which affected 81 employees at Heber and Snowflake, is expected to be temporary.

Education - Employees of nine Valley companies are taking college courses through Arizona State University's Interactive Television Program this fall. Classes in business, engineering, physical education and physics are being offered for credit. They are broadcast from ASU classrooms to television monitors at off-campus sites. Participating this fall in the program, which began in spring 1982, are GenRad, Goodyear Aerospace, GTE, Honeywell, Intel, Motorola, Rogers Corporation, Sperry Flight Systems and Unidynamics. For more information about the program, call (602)965-6738.

The University of Arizona ranked third in the nation in research money received from industry in 1981-82. Georgia Institute of Technology received $11.4 million, Penn State collected $10.5 million and the UofA received $8.6 million. Arizona State University, while not ranked in the report prepared by the UofA's division of institutional research, received $750,000 in donations from industry in 1981-82.

The Lake Havasu Community College Campus Foundation has begun raising money to construct a permanent campus in Lake Havasu City. A 238-acre site has already been acquired.

Newsletter Started - The Arizona Film, Theatre and Television Newsletter began publication in September. Aimed at Arizona performing artists, producers,scriptwriters directors, stage managers and technicians, the monthly newsletter contains such information as job openings, audition and casting dates, classes and seminars, performance dates and contest and grant details. The publishers hope the newsletter will improve employment conditions for people in in visual communications.

Federal Legislation on Child Support Affects Employers - Under newly passed legislation, employers would in many cases have to withhold child support from wages when a parent fell one month behind in making court-ordered payments. The law requires child-support orders issued or modified after October 1, 1985, to permit withholding of wages if a parent becomes delinquent in his or her obligations. Employers could be "held liable to the state for any amount" that they failed to withhold from an employee's paycheck after receiving proper notice from the state.

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